

## PythoniCamp ~ try to train practical Pythoner fast

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### Abstract

this is entirely China's Python community try how fast and efficient training:

- to share the training experience for current programmer in China's IT industry
- Analysis of the current needs and contradictions of Chinese Pythoner
- Further to share reusable Python developers training mode
- the rapid Python developer training mode, is base CPyUG<sup>1</sup> community long-term practice

### 1. Introduction

China's IT education mainly teaches the basic knowledge, which is reasonable, but too few practices, in the course to integrate theory with practice, which caused the base not to be solid and weak practical ability. At the same time, enterprises are not easy to select the students who start working directly, they have to make appropriate training after the students enter into the companies. Here the main problem is that the universities are isolated from the market. The schools do not have the students that the companies want, while the schools even don't know what kind of students the companies want.

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<sup>1</sup> China Python User Group <http://wiki.woodpecker.org.cn/moin/CPUG>

PythoniCamp's greatest vision is to enhance mutual understanding, communication and collaboration between enterprises and universities, especially to make education more aware of real demands from the real industry; by means such as organizing experienced engineers into university teaching practices, students can find out which skills are most useful to their future career path, and make clear their studying effort direction.

### 1.1. Course Design

Comparison of curriculum design between

`Computer Science and Technology Curriculum.doc<sup>2</sup>` from `Department of Computer Science and Technology Tsinghua University<sup>3</sup>` with `MIT:Electrical Engineering and Computer Science<sup>4</sup>`

We can conclude :

abt. Teaching materials:

- Chinese colleges and universities all use self-compiled materials
- The authors of teaching materials are not the authoritative experts in the related fields
- The contents of the materials are edited in accordance with the requirements of national syllabus
- Generally the national syllabus lags behind the social needs at least 5 years
- This makes the learning objectives and contents of the entire major can not link up with the reality.

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2 <http://jwcdata.hrbu.edu.cn:8080/word/kcjj/15.doc>

3 <http://orz.se/9JI>

4 <http://www.core.org.cn/0cwWeb/Global/all-courses.htm#ElectricalEngineeringandComputerScience>

abt. Scope :

- 2/5 is Science-related Mathematics / Electronics
- 2/5 is the entry to the computer-related fields
- 1/5 is the development practice, and all the practices are only the M\$ related technologies (VB / C ++ / SQL Server)

abt. Contents :

- Nearly half of pure theoretics
- Others are the characteristic introduction to the related technical fields
- Most of the computer science courses are optional, only a few are required.

abt. Requirements :

- The contents of the courses are required on examination syllabus, do not care whether students understand the real purpose of the courses and the fields associated
- e.g: "Data structures and algorithms"
  - Only require the students to know what data structures and algorithms are
  - Remember several data structures Code Implementation by C / C ++ / JAVA
  - Dictate several pseudo code of the classic sorting algorithms
  - Then you can pass the exam!

## **1.2. Eventually**

if students that Carefully follow the textbooks for learning :

- will do not understand what the basic software is and how to design a software
- will do no experience how to collaborate to write a piece of software in a development team
- will cannot operate any other operating systems except MS.

## **1.3. Recruitment reality**

At present more than 1000 institutions and universities inChina have opened the relative majors each year.The universities recruit over 5 million students each year, and 3% of them or more enter into the computer-related departments.

- Each year there are nearly 300,000 computer-related major students, nearly 20% of them choose to continue with the study, about 1% set up in businesses, and the others look for jobs.

- The IT industry needs nearly one million employees each year, among which 40 million or more programmers are needed.

- The gap between employed software testers and the demanded software testers is up to 20 millions, and the gap of the embedded software engineers is 15 millions. With the rapid development of software outsourcing industry, Japan, Korea and other small languages software engineers are very scarce, only the gap of Japanese outsourcing software development talents is over 30 millions.

- Among the 3000 large enterprises in China, fewer than 5% of the enterprise information construction has entered a mature stage, the state-owned enterprises have great potentials in absorbing graduates

- But the employment situation is very bad :

### **1.3.1. Actual employment cases**

Kingsoft.com as an example:

- 2008-07 Filter out 600 students from 2700 resumes and then sends invitations for online test

- passed 46

- After training in kingsoft college, qualified 16

- 2008-08 assigned to each department, 13 students are finally employed

- Recruitment ratio = 0.48%

Statistics on Beijing City University:

- there are four colleges directed in information;

- There are 6000 graduates, about 2000 are computer science graduates, according to a rough statistics;

- After graduation, the ratio of engaging in software development is about 1 / 80 or so, but the ratio is decreasing year by year

- 3 years after graduation, the proportion of students continuing with software development is not calculated. But it's roughly estimated to be less than 1 / 100.

- the employment rate of Common Institutes of Higher Learning in Beijing City is only 7.61%.

### **1.3.2. Be employed**

Sadly, there is a 'Be employed'<sup>5</sup> phenomenon in colleges

- The colleges create verification that students are employed through various ways to form a considerable

data of "'Graduate employment rate'<sup>6</sup>" per year

- The attractiveness of each school depends on its "'Graduate employment rate'"

- Only the ones with a high "'Graduate employment rate'", are good schools, students and parents are willing to enter into this school

- Only a sufficient number of students could apply for education funds, and thus have a bright future

- Therefore, many students was 'Be employed' while they do not know at all in recent years;

- 'Be employed' Phenomenon, indicates the China college can not afford to improve the student's competitiveness facing job applications

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5 <http://www.21cn.com/weekly/jobs/index.shtml>

6 <http://orz.se/9JH>

### **1.3.3. Why?**

Can be understood from the following aspects:

#### 1. Teaching:

- The "cook-book" approach causes the students to:

- learn computer science through the way of learning mathematics / physics / chemistry in high school;

- strengthen in remembering the isolated concepts by finishing dozens of exercises

- barely have no opportunities to finish a executable software on their own

- not master the programming abilities, only remember the programming codes by route rather than completely understand programming

- not correctly understand procedures and data structures

#### 2. Development experience:

- The majority of the students mainly practice the programming skills in homework. What they do is to refer to the codes of senior students and then copy their codes directly

- Although most of the students have personal computers, they mainly use their computers to play game rather than try programming

- Even some students independently complete the development by following the instructions of books but they only get a one-sided understanding about the programming languages because they are lack of timely interactivities and communication

### 3. Attitude:

- Most students stick on the courses and rarely learn but themselves in spare time, because most of them just want to get a diploma so that it's easy to find a decent job and enjoy the treatment of a university graduate.

- From primary school to university, the schools keep requiring the students to obedient the rules, none of courses or training concern about the professional quality and attitude. So the students are lean to consult the experiences of the seniors rather than solve them by their own when facing difficulties.

- Exam-oriented education from primary school to university, students are subconsciously deeming that they can be promoted still by passing kinds of tests and they also can consult the classmates, seniors or teachers when entering into the society.

- The first reaction of encountering a difficulty is to escape or wait for another chance, they have lost the curiosity and courage to explore the unknown.

### Overall:

- The computer science major of the colleges mainly apply the traditional qualification education, Attention to imparting theoretical knowledge of the system, strengthening the contempt application of skills training. Some graduates don't have the solid computer science theories, nor perfect practical skills, so they are not qualified to the IT industries;

- Software colleges and the software department of Vocational & Technical College hold the courses oriented to IT enterprises. The teaching method is comparatively flexible, but



they cannot achieve the seamless connection with the enterprises demands owing to the factors, like the lack of practical projects, shortage of training bases or the lack of high-level trainers from the IT enterprises

## **2. The birth of PythoniCamp**

The author also graduated from this standard of Chinese universities , and after many years of struggling quasi-programmers, finally entered into the free software world through PHP, got to know the technology community and began a happy collaborative learning;

- Also experienced Pythonic through self-learning, and deeply be overwhelmed by this elegant problem-solving attitude, and confirmed it is a kind of effective work of art in practices , which is needed by all kinds of software development teams;
- Then the author got acquainted with the experts in various industries in the ongoing process of `CPyUG ClassMeet<sup>7</sup>` organization, further confirmed the development of various software companies have the commonnesses. The efficient teams are similar, they are all Pythonic.
- We also found the shortcomings of the above mentioned Chinese universities and the confuses of the students and the shortage of correct concepts and excellent abilities in the process of communicating with the students from all kinds of universities.
- The core conflicts are concentrated in the following aspects:
  - There are irreconcilable contradictions between the comparatively solid foundation of the students and the comprehensive abilities to solve problems required by enterprises

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7 <http://wiki.woodpecker.org.cn/moin/CpugClassMeet>

- The development experience in the process of finishing homework are contradictory with the the communication ability and the teamwork concepts required by enterprises
- The learning activities pushed by the pressure of exams are contradictory with the self-research ability required by enterprises, which is otivated by career development
- The students who overcame the above shortcomings through self training before graduation are those who invented software or participated in free software development. They got in touch with the comprehensive procedure, including design, development, test and improvement by taking part in continuous development and online communication at least one year, they also formed the basic career qualities. This kind of students are precious resources, are most employed before graduation, or choose to set up their own bussiness.
- Most of the students basically are not interested in computer major, they just want to get the relevant professional diploma, to enter IT companies. Those students will not be a software developer, basically convert to the roles like salesman or customer support.
- However, there are still some students who are interested in computer, but did not know how to learn programming. They studied hard in schools but did not know they did not obtain the basic qualities of being a programmer.

the third kind of students are the target of PythoniCamp to rapidly improve them ;-)

- How to quickly improve their abilities is what the author keeps concerning about. The author is always accumulating the executable training methods through the internal training, onine and offline communication since 2004.

- Since 2007-10, the author started building Python teams in the relative companies and took charge in recruiting and training members by himself. Therefore he got the chance to practise all kinds of activities concerning PythonCamp and set the specific implementation.
- 2008-7 completed the first practice by taking advantage of kingsoft college:

## **2.1. Kingsoft PythoniCamp**

### **What is Kingsoft?**

- Kingsoft Corporation Limited is a leading software developer, distributor and service provider in China. Kingsoft now has R&D centers in Zhuhai, Beijing, Chengdu, Dalian, and Shenzhen. Two main businesses are software and online games. We have several well-known products such as Kingsoft Office, Kingsoft Power Word & Kingsoft Internet Security...

### **What is Kingsoft College?**

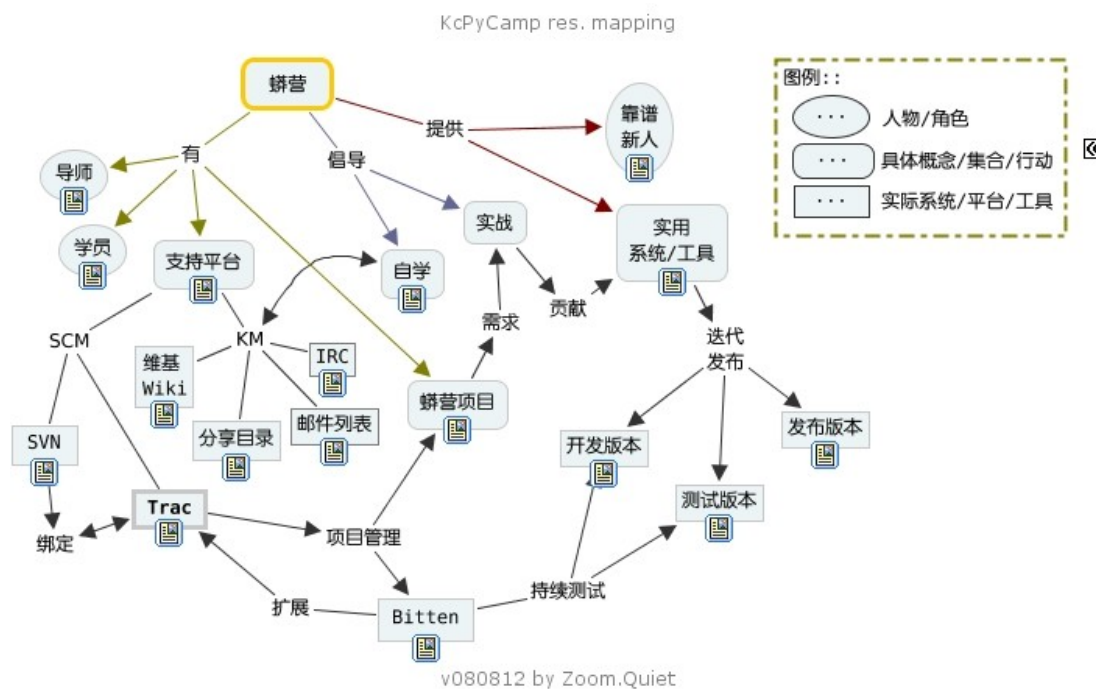
- A training camp set up by Kingsoft company, a full-time holiday training camp for junior. After two or three months' training, bring up the students' comprehensive abilities in the aspects of basic programming knowledge, independent program development, program development team, etc. Try to select the capable students with practical experiences.

- Since 2007, Python was applied in many scopes of Kingsoft company because Python is easy to learn and use, efficient in maintainance, several large-scale projects are also developed by Python. itself is easy to learn as easy to use, maintain high efficiency

advantages in the practical application of all aspects of the company, some large-scale projects have begun to develop all use Python, but it's difficult to recruit experienced developers from the market.

- Hereby proposed by the HR department, Kingsoft College implemented the first PythoniCamp practice, which is held by Kingsoft company and hosted by the author.;

### What is PythoniCamp?



- a Pythonic Experience and high-tension training camp

- Enable the students to establish the teamwork concept and good "reliable" programming habits in a short time through the free actual practice experiences;

- Upgrade the students without reliabilities to the staff who take responsibilities

- Meanwhile help the related companies identify potential students and track and bring up the targeted students so that they can obtain the appropriate staff in time.
- Many software companies want to recruit people who have experiences and can involve into the team quickly, which is critical to the students who just graduated from college. They need a "catalyst", convert the accumulated knowledge of the students to the qualities required in the following work by this "catalyst". In the PythoniCamp, we will create a real software engineering environment, and guide the students to understand programming on their own and inspire their own creative abilities through centralized interaction. .

### **Why choose Python?**

- Some departments in the company have the real employment needs for Python Programmers;
- Only the quick script language--Python enable the programmers to quickly collaborate and finish a comparatively complete work within a few weeks and experience the entire life circle of software development,
- only the Purely instrumental script language ,such as Python, can be mastered in the shortest time, and can focus on solving problems, not the development of language skills (so that forcibly give up the cock-book style waterfall development procedure trained in schools)

#### **2.1.1. Practice**

Abt.Student :



- Source:the students passed the first test of the Kingsoft College

- Background: graduate students from 14 universities, they are all computer science majors

abt. Organization :

- Tutor: select 3 staff from the department the author worked in. They take charge of answering questions, guiding the development and the author take charge of hosting the daily routine standup meetings

- Teaching assistants: select one students from the Kingsoft college, who is responsible for the daily training camp order and monitors the students activities and grade the performances of students according to the Kingsoft College rules.

- User Representative, select 7 requirements from 4 departments and assign four people to take charge of inquiring actual needs and checking the final products.

abt. Summary :

- Merge the concise and necessary knowledge into the speech and enter into the project environment to start the development.

- Once: Python introduction, lasts about 50 minutes; target: Recruitment of voluntary participants from Kingsoft college;

- Once: Python Job Description, About 30 minutes; target: Introduce the actual positions and career developments graduated from Pythonic Camps in Kingsoft company, gives the confidence to the students;

- Twice: Python Basic Training, About 100 minutes each time; target: set the scope of practical Python knowledge, guide into Pythonic thoughts and point out the direction to learn Python;

- Twice: Instruction of Pythonic Camp activities, about 50 minutes each time, target: introduce the basic thought of collaborate team development, the basic support system and announce the using practice of the development environments and Description based collaborative development team thought, introduced basic support system, using the standard circular environment; establish agile development model to promote the weekly iteration method, and the usage details; establish the push methods and implementation details of the weekly iterative mode of the agile development.

http://wiki.s.kingsoft.net/moin/KcPyCamp

## 蟒营资源

课堂资料:::

### 导入讲演

- [Python 快速介绍v0.9.1](#)
  1. [080717-campy.ogg](#) 080717快速介绍录音 [AlbertLee](#) 主讲
- [蟒营理念v080729](#)
  1. [080728-cpc-start.ogg](#) 蟒营开班导入 [ZoomQuiet](#) 主讲
    - [080811-cpc-ini.ogg](#) 蟒营开班导入 [ZoomQuiet](#) 080811主讲
  2. [080728-cpc-netapp-sa.ogg](#) NetApp SA 职位急招说明 [AlbertLee](#)
  3. [080811-cpc-itemsV003.ogg](#) NetApp开发项目简介 [AlbertLee](#)

### 开发速讲

- [Python 简介\(MarchLiu\)v080725](#)
  1. [080729-py-tut-1.ogg](#) Python编程语言-[简易入门指导](#) [MarchLiu](#) 主讲
  2. [080729-py-tut-2.ogg](#) Python编程语言-[简易入门指导](#) [MarchLiu](#) 主讲
  3. [080811-cpc-py-AM.ogg](#) Python编程语言-[简易入门指导](#)080811-AM [MarchLiu](#) 主讲
  4. [080811-cpc-py-PM.ogg](#) Python编程语言-[简易入门指导](#)080811-PM [MarchLiu](#) 主讲
- [Trac精简教程 + 版本/项目/知识管理浅谈](#)+SVN常用命令
  1. [080731-trac-svn-wiki.ogg](#) SVN+Trac+Wiki的日常工作模式 [ZoomQuiet](#) 主讲
  2. [080812-cpc-vm-trac-km.ogg](#) VM/PM/KM速讲 [ZoomQuiet](#)
- [Trac精简教程v080811](#)
  1. [080811-wpsupport-tracV001.ogg](#) 面向产品组的Trac 介绍 [ZoomQuiet](#) 主讲

沟通录音:::

### Py教材

- [Python 零海接入门](#) 修订ing..
- [Python Tutorial](#) for Pytho2.5.2
  - [Python教程](#) for Python v2.3.3
  - [简明 Python 教程](#)
- [DiP - 深入 Python](#)v5.4b

### Wiki教材

- [蟒营维基教程](#)

### 外部资源

- Python 环境
  1. 官方下载: <http://www.python.org/download>
  2. 推荐下载: <http://aspn.activestate.com/AS/ActivePython>
- SVN教程:
  1. [使用Subversion进行版本控制](#)v1.2
  2. [最快SVN入门教程](#)
  3. [小乌龟使用指南](#)

- Then, immediately asked the participants to build their own team according to their interests, choose a project and then start the iterative development until the PythonCamp ends.

abt. Experience :

- All real project team!
- Provide Perfect platform for configuration management:
  - Use SVN for version management <https://kcpycamp.googlecode.com/svn/trunk/>
  - Use Trac for task / bug tracking (intranet <http://trac.rdev.kingsoft.net/kcpycamp/>)
  - Use the wiki for knowledge sharing <http://wiki.rdev.kingsoft.net/moin/KcPyCamp>





- Use the mailing list for public discussion <http://groups-beta.google.com/group/kcpycamp>
- Use online communication in IRC #kcpycamp (freenode.net)
- Implementation of iterative development:
  - Iterative self-nominated team of internal managers, and external interfaces were, respectively, develop coordination, and # requirement management
  - Actual development, through regular meetings to promote:
    - Twice a week, answering:
      - Mon./Thur. before 17:00 The problem through various channels order submitted to the assistant, mail to masters before 17:30
      - Tues./Fri. 11:00~11:30 Q & A
      - A milestone in a week:

- Fri. 11:30~12:00 Regular weekly meeting, demonstrating development results  
this week

- Coordination meetings twice a day the day standing development:

- 09:00~09:15 Each one say day of the task announcement

- 16:45~17:00 Each one summarize the progress of each day, the main difficulty

(all meet,had sound recordings,and published into wiki)

http://wiki.s.kingsoft.net/moin/KcPyCamp			
1.	<a href="#">080811-meet-AM.ogg</a>	080811 AM 站立晨会	<a href="#">ZoomQuiet</a>
2.	<a href="#">080812-meet-PM.ogg</a>	080812 PM 站立小结	<a href="#">ZoomQuiet</a>
3.	<a href="#">080813-meet-AM.ogg</a>	080813 AM 站立晨会	<a href="#">ZoomQuiet</a>
4.	<a href="#">080813-meet-PM.ogg</a>	080813 PM 站立小结	<a href="#">ZoomQuiet</a>
5.	<a href="#">080814-meet-AM.ogg</a>	080814 AM 站立晨会	<a href="#">ZoomQuiet</a>
6.	<a href="#">080815-meet-AM.ogg</a>	080815 AM 站立晨会	<a href="#">ZoomQuiet</a>

### Sprint2

1.	<a href="#">080818-meet-AM.ogg</a>	080818 AM 站立晨会	<a href="#">ZoomQuiet</a>
2.	<a href="#">080818-meet-PM.ogg</a>	080818 PM 站立小结	<a href="#">ZoomQuiet</a>
3.	<a href="#">080819-meet-AM.ogg</a>	080819 AM 站立晨会	<a href="#">ZoomQuiet</a>
4.	<a href="#">080820-meet-AM.ogg</a>	080820 AM 站立晨会	<a href="#">ZoomQuiet</a>
5.	<a href="#">080820-meet-PM.ogg</a>	080820 PM 站立小结	<a href="#">ZoomQuiet</a>
6.	<a href="#">080821-meet-AM.ogg</a>	080821 AM 站立晨会	<a href="#">ZoomQuiet</a>
7.	<a href="#">080822-meet-AM.ogg</a>	080822 AM 站立晨会	<a href="#">ZoomQuiet</a>

### Sprint3

1.	<a href="#">080825-meet-AM.ogg</a>	080825 AM 站立晨会	<a href="#">ZoomQuiet</a>
2.	<a href="#">080826-meet-PM.ogg</a>	080826 PM 站立小结	<a href="#">ZoomQuiet</a>
3.	<a href="#">080827-meet-PM.ogg</a>	080827 PM 站立小结	<a href="#">ZoomQuiet</a>
4.	<a href="#">080829-meet-PM.ogg</a>	080829 PM 站立小结	<a href="#">ZoomQuiet</a>

### 闭营总演示 080829 AM

1.	<a href="#">080829-V001-MB-end.ogg</a>	M.B 团队演示和总结	
2.	<a href="#">080829-V002-CCRJ-end.ogg</a>	CCRJ 团队演示和总结	
3.	<a href="#">080829-V003-HHD-end.ogg</a>	HHD 团队演示和总结	
4.	<a href="#">080829-V004-VER-end.ogg</a>	VER 团队演示和总结	
5.	<a href="#">080829-V005-EAR-end.ogg</a>	EAR 团队总结	
6.	<a href="#">080829-cpc-faq-end.ogg</a>	闭营总结和答疑	<a href="#">ZoomQuiet</a>

- Masters colleagues as possible to maintain the proper attitude, and open as possible to answer students questions, but never took the initiative to help, and if students do not ask, Master only can by way of setting and asking questions in standing meet, and guide to self-studying / try; Repeat inculcate a variety of practical work must have a sense of! such as:

- "Masters can provide all the help, but the premise is you have to clear what you want"

- "Any problems, when clearly defined the meaning of the problem, the problem has been resolved in half"

- "Development of any difficulties encountered in the process, 99.9% of cases, others will inevitably encountered, and solved, and had published a solution, just found out it !"

- "A problem, until the whole group of people are aware, and fully considered the options, it may be the most reliable program"

- ...

Abt. Assessment :

- To identify potential selection of psychological / consciousness effectively converted the center, does not care about code quality, more attention to the code forming process and team efficiency

- Guide to behavior-based, as far as possible all the quantitative targets, try to provide an objective assessment of student results in transforming!

- Daily rates recorded by the assistant, weekly results, standings, **did not announce the details of the assessment standards** <sup>8</sup>

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<sup>8</sup> *Simulate the real workplace scenarios of potential rules*

- A total of 44 items from 20 assessment points
  - Potential , concern for self-study habits and leadership potential
  - Collaboration, team awareness and communication skills concern
  - Skills, attention to developing capacity / efficiency / habit

### **2.1.2. Effect**

- the first PythoniCamp in 2008-08
- 35 students, Actively participated in the 22
- 2 drop-outs
- Development team composed of 5
- Final completion and delivery of 3 systems
- Students pass the examination 5
- final Into the company 3
- 14% success rate, is usually recruited from the community in the success rate of 30 times

### **2.1.3. Student achievement**

#### **1. MogBench:**

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- code: <http://kcpycamp.googlecode.com/svn/trunk/MogBench/>

- name: Mogilefs File System Management Tools

- feature: base Django, Simple and practical Mogilefs file cluster management and analysis interface.

## 2. CCRJ:



- code: <http://kpycamp.googlecode.com/svn/trunk/kcCCRJ/>
- name: Kingsoft College C++ Code Rule Judger
- feature: Based on the command line, presented on the training camp trainees to submit C++ code, automatic code standard examination of 14 rules;

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\color_macro.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\constant.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\debugnew.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\klight.cpp
有问题
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\klight.h
有问题
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\lightmain.cpp
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\consta
nt.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\klight
.cpp
有问题
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\klight
.h
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C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\LightO
ff8_5.cpp
有问题
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\LightO
ff8_5.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\resour
ce.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\StdRfX
.cpp
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\LightsOff\WINDOWS\StdRfX
.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\空当接龙\color_macro.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\空当接龙\constant.h
符合代码规范
C:\Documents and Settings\kcs0006\桌面\CCRJ\第二次作业\空当接龙\debugnew.h
符合代码规范

```

### 3. VER:

- code: <http://kcpycamp.googlecode.com/svn/trunk/kcVER/>
- name: Virus Encyclopedia Robert
- feature: Command-line tool, can simulate the administrators of <http://vi.duba.net/>, read the virus analysis, and automatic submit entries;

### 4. HHD:

- code: <http://kcpycamp.googlecode.com/svn/trunk/kcHHD/>
- name: Human Resources Handbook
- feature: Interview management platform prototype, the interviewer can manage the time scheduled, the interviewer resumes, interview progress and scores

## **2.2. BCU PythoniCamp**

### **1.2.1. Practice**

as weekend esp. class: 4 hours per day course, continue about half a year

Learning Objectives levels:

- stage I : Python based
- stage II: Python features high-level language study: yield, per class, etc.
- stage III: Django, GAE's study

### **2.2.2. Student achievement**

Herostory <http://code.google.com/p/herostory/>



- Students developed a complete Japanese-style 2D game engine, in order to end the game books API development mainly to practice in all aspects of Python. For this API engine, you can create any of the SLG or RPG game. And through this project for students to learn the Python's use of test cases, making the engine more robust.

School teachers platform <http://code.google.com/p/bcuteachingweb/>

- Through this platform, teachers can post homework and courseware, students can online learning , submit homeworks. Through this platform, so that the teaching process more transparent. Through this program, students complete learning the Django and the Django Admin

Early Education Net <http://github.com/hexuotzo/khufu>

- This is an actual project, in addition to use of the Django outside, the students also prepared a number of Python scripts to facilitate the operation and maintenance. By learning to how to optimize Mysql, memcache, etc., learned a lot of practical work experience in the practical need to use.

### **2.2.3. Effect**

there are about 1-2 people in each class will engage in software development ;

Currently the number of students taught in the 5, full employment, and all the software companies in the formal

## **3. Conclusions and ideas**

### **3.1. PythoniCamp Fast training methods:**

- Choose Python as the development language is reasonable practice, students can fall in project in 2 days;

- Iteration through real projects, can be very effective ideological indoctrination of various practical projects;

- Agile project management approach to promote, you can create enough pressure to stimulate student awareness of transformation

- Ensure that a key to success:

- Consistency of goals and organizational behavior

- All initiate, master only guide the sidelines

- A real job requirement, a clear improvement of student motivation

- Notes:

- Communication between masters and students to fully staff and equality

- To communicate at any time

- Assessment of the standards can not open

### **3.2. *PythoniCamp Future Planning:***

Collecting teaching data, a complete lesson plans, and to promote the ultimate hope that within 5 years:

- enter two or more cities

- enter 4 or more university

- Completion of eight or more PythoniCamp
- Transportation to more than 10 enterprises have the potential of Python programmers

set up : "**four-win situation**"

1. Schools do not specifically invited to a company of experienced teachers to guide learning, but ,can get a good rate of employment
2. Students need to spend the extra training costs, in the shortest possible time, the school-type passive learning, transformation to active problem-oriented learning and behavior patterns, to improve the success rate of applicants
3. Recruitment services to companies do not pay extra, can get from the community list of potential students, and job-related skills prior to educate, to improve the success rate of recruitment
4. Community without extra effort, can have clear objectives and a variety of support projects, their love and ability to play, feedback communities, to improve the technical community's influence

Promotion :

- Joint `ZEUUX<sup>9</sup>`, the PearlRiverDelta-tech-party, `CPyUG`, set up a "PythoniCamp" speaking groups; in well-known student community (`5xue<sup>10</sup>`) to carry out publicity in the past lesson plans

- Joint one Zhuhai university, in carrying out multi-stage "PythoniCamp", in the well-known throughout the community to track student progress and student experience report

- Joint `ZEUUX`, Experience teaching team to provide for online activities, support functions and conduct a virtual online "PythoniCamp"

- All lesson plans combine to form a perfect "PythoniCamp" norms, training masters, and different universities in different cities to carry out;

- Control of the annual "PythoniCamp" scale, selected to ensure a stable rate of corporate relations, Start boutique style of promotional activities;

- Accumulation of all the media resources, production of teaching films, try the online media in communication, receive feedback, and further amendments to try to promote remote universities, voluntary organizations of all sizes "PythoniCamp"

## **4. References**

### **4.1. Community CPyUG ~ China Python User Group**

- founded: 2005-07-30

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<sup>9</sup> <http://www.zeuux.org/about/about.html>

<sup>10</sup> <http://www.5xue.com/>

- Organization : mailling list python-chinese@lists.python.cn (python-cn@google ) Core members obligation to act as management

- Daily online discussions, irregular off line held `ClassMeet`:

- `ClassMeet` ~ Members from all over `CPyUG`, self-organized technical exchange meetings

- Basic organizational processes:

- the first initiative in the list, collecting topics

- Various topics will be completed on time to lectures and exchanges, online publishing all kinds of information (in wiki.woodpecker.org.cn posted slide / audio / photo)

- Continued online discussion

- Achievement

- <https://groups.google.com/group/python-cn> Python programmers gathered more than 8500, is the world's largest technical list of Chinese Python

- The `ClassMeet` had be 5 years in total more than 40, nearly 2,000 people in cumulative direct participants

- At least five times to enter the school, for Python language propaganda

- released several open source works ,such as:UliPad / UliWeb

- startup `O.B.P<sup>11</sup>` , organize a series of python original or translation related technical books

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11 <http://code.google.com/p/openbookproject>

## **ZEUX**

- Zeux is the leading innovative online community and collaboration platform to serve the free software community in China. We develop zeux system that powers zeux.com by the free software technology, zeux has the innovation user experience design and supply the instant message, email, calendar, social network, blog and event applications, to serve the community to get more connected. We believe zeux will be great helpful to promote the free software movement in China, and let more people know the ideas of free software.

- We also hold the Zeux Free Software Summit that's a annual event to promote the free software in China.

- Currently, there are 25 people in the zeux core team, and we also have a great advisor team that includes Richard Stallman, Li Songbo, Marshall Kirk McKusick, Guido van Rossum, Ni Guangnan, Mikko Puhakka, Gong Li, Lu Shouqun.

- For more information, please visit <http://www.zeux.org>, and contact email is [info@zeux.org](mailto:info@zeux.org)

## **4.2. Organization**

**Kingsoft.com <http://www.kingsoft.com/>**

- Kingsoft Corporation Limited is a leading software developer, distributor and service provider in China. Kingsoft now has R&D centers in Zhuhai, Beijing, Chengdu, Dalian, and Shenzhen. We have several well-known products such as Kingsoft Office, Kingsoft

PowerWord, Kingsoft Internet Security and online games such as "JX Series" and "The First Myth". Kingsoft has set up some of China's largest online communities, including the most popular domestic online English learning website [www.iciba.com](http://www.iciba.com) and the online games website [www.xoyo.com](http://www.xoyo.com).

- On October 9th, 2007, Kingsoft was listed on the Hong Kong Stock Exchange (stock code: 03888.HK). 2008 was the 20th anniversary of Kingsoft. After twenty-year's struggles and development, Kingsoft will continue to accelerate the internationalization strategy based on techniques.

- Kingsoft people have never doubt their goal is to become a world-class software provider.

**Kingsoft College <http://www.kingsoft.com/zt/2008/kscollege/index.html>**

- kingsoft college like "Whampoa Military Academy," is to foster research and development talent, love of software development for all beginners and those interested in the potential development of the software industry talent. Through a period of two to three months of training, basic knowledge in the process, independent program development, program development, and so the team integrated Pei Yang on the students, and strive to meet the position requirements to build, be combat software R & D personnel.

**Beijing City University <http://www.bcu.edu.cn>**



- BCU was founded in 1984, the Ministry of Education approved the establishment of a national first by private colleges and universities, now colleges. Beijing City University has formed a more complete multi-disciplinary, multi-level forms of training high school talent in the professional system and pattern of the national advanced unit of Private Higher Education Institutions.