# Song XIE

### Education

2008–2012 (expected)

B.E. in Computer Science, Huazhong University of Science and Technology(HUST),

Wuhan, P.R.China.

General GPA: 86.10/100, ranked top 10% in 389 students.

Major GPA: 87.69/100.

## Experience

2011 Intern, Microsoft Research Asia, Beijing.

Developed a client of a vertical search engine TravelGuide<sup>1</sup> on Windows Phone 7.

2011 Team Leader, Mathematical Contest in Modeling, HUST.

Responsible for information collecting, programming, paper writing and typesetting.

- 2010 Developer, Windows Phone 7 Pioneer Program, Microsoft Research Asia.
  - O Developed an application for Window Phone 7 providing book information including prices by scanning the barcode on the back cover of books.
  - O Responsible for Web Service using *Django* in *Python* deployed on *Google App Engine*.
- 2010 **Designer**, *Microsoft Elite Challenge*, Microsoft Research Asia.
  - O Developed an electronic receipt system in order to reduce paper wasting.
  - O Using Windows Phone 7 as client with *QRCode Recognition* technology and a Web Service using *WCF*.
  - O Responsible for designing the architecture of the system.
- 2010 **Developer**, Jachin ODBC driver, TopCoder Inc..

Extended the ODBC driver's connectivity module to support SOAP and IBM XMS protocol.

2009 Team Leader, ACM-International Collegiate Programming Contest, HUST.

Responsible for *Data Structure*, *Dynamic Programming*, *Combinatorics*, *Game Theory*, and *Number Theory*.

#### Awards & Honors

2010-2012 **Outstanding Student Award**, Huazhong University of Science and Technology. Granted to top 1% students among 32,000 undergraduates.

- 2011 Excellent Intern Award, Microsoft Research Asia.
- 2011 **Honorable Mention**, *Mathematical Contest in Modeling*, Consortium for Mathematics and Its Applications.
- 2011 Second Prize(3rd place), The 2nd Hengsheng Cup HUST Programming Contest.
- 2011 Excellent Innovation Award, Microsoft Student Challenge, Microsoft Research Asia.
- 2011 Third Prize, Alibaba Cup ACM Programming Contest, HUST Site.
- 2010 Excellent Student Scholarship, HUST, 30 out of 500 students, 6%.
- 2010 200th Place, Youdao Nanti NetEase Programming Contest, NetEase Inc..
- 2009 Innovation Scholarship, HUST, 10 out of 500 students, 2%.

¹http://travel.msra.cn

- 2009 **Gold Medal**, *ACM-International Collegiate Programming Sub-Regional Contest, Central South-China Site*, Hunan University.
- 2009 **Bronze Medal**, *ACM-International Collegiate Programming Contest*, *Asia Regional*, *Wuhan Site*, Wuhan University.
- 2009 **Bronze Medal**, ACM-International Collegiate Programming Contest, Asia Regional, Shanghai Site, Fudan University.
- 2009 Third Prize, The 10th Scientific Festival, HUST SeedPK Programming Contest.
- 2009 Third Prize, The 5th HUST Programming Contest.
- 2008 Third Prize, The 9th Scientific Festival, ACM HUST Programming Contest.

## Selected Undergraduate Course Projects

- 2011 Processor implemented on FPGA, Computer Organization Course Project.
  - O A processor supporting MIPS-like ISA with 5-stage pipeline in Verilog.
  - O Got a score of 99, ranked first among the 389 students.
- 2011 Linux driver & system monitor<sup>2</sup>, Operating System Course Project.
  - O Developed a character-based pseudo-device driver for Linux.
  - O Developed a system monitor interpreting /proc in Linux, using PyGTK and PyCairo for GUI.
  - O Got a score of 98, ranked first among the class.
- 2010 AI for Reversi Game<sup>3</sup>, Data Structure Course Project.
  - O Developed a Reversi Game program with GUI coded in *Python* and AI coded in *C*.
  - O Using *SWIG* as the interface between Python and C.
  - O Got a score of 98, ranked first among the class.

#### Skills

Algorithm ACM/ICPC-level algorithmic problem-solving.

Machine Linear regression, logistic regression, naïve bayse, neural network, support vector machine, Learning and k-means cluster.

Software Understand general principles in software design. Familiar with common design patterns Developing and unit test frameworks in Python and C#.

Language C, C++, Python, C#, assembly, Octave, MATLAB, Mathematica, HTML, CSS, Bash, Scheme, Emacs Lisp, COBOL and assembly on IBM Mainframe.

Platform Linux, Mac OS X, Windows and z/OS on IBM Mainframe.

IDE Emacs on all platforms, and Visual Studio on Windows.

Certificate Advanced Level COBOL Programming Language, and Advanced Level Mainframe Operating System, from IBM.

Typography Familiar with typesetting in LaTeX, and graphics drawing in PGF & TikZ.

General Excellent self-study and quick learning skills, as well as effective communication skills.

#### Standard Tests

TOEFL iBT 106

Reading: 29, Listening: 26, Speaking: 24, Writing: 27 Date: Feb 20, 2011

GRE(General) 1290, AW: 4.0

Verbal: 490, 58%, Quantitative: 800, 94%, Analytical: 4.0, 48% Date: Jun. 11, 2011

 $<sup>{}^2</sup>https://github.com/aifreedom/HUST-OS-Course-Project\\$ 

<sup>3</sup>https://github.com/aifreedom/PyIagno