# Xin Ye

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WWW: http://xinye-ohio.github.io

RESEARCH INTERESTS

Search-based software engineering, programming languages, information retrieval, machine learning, pattern recognition, human-computer interaction, mobile application

**EDUCATION** 

### Ohio University

Athens, Ohio, USA

Ph.D., Computer Science, Expected: May 2015 (GPA 3.9)

August 2010 - present

- Dissertation: Learning to Rank Relevant Files for Bug Reports using Domain Knowledge
- Advisors: Dr. Chang Liu and Dr. Razvan Bunescu

## Beijing Institute of Technology,

Beijing, China

M.S., Electronic Engineering, (GPA 3.7)

August 2004 - July 2006

- Thesis: Booting Linux with U-Boot on a Digital Signal Processing Board with a Xilinx Virtex-II pro FPGA and ADI TigerSHARC DSP
- Advisors: Dr. Yue Wang

B.S., Electronic Engineering, (GPA 3.5)

September 2000 - July 2004

#### EMPLOYMENT

### Ohio University

Athens, Ohio, USA

Graduate Research Assistant, Advisor: Dr. Chang Liu August 2010 to present

- Apply information retrieval and machine learning techniques to assist automated software engineering tasks.
- Develop a ranking system to recommend source code files for received bug reports.
  - Use JDT ASTParser to parse source code checkout from the Git repository. Extract bug reports in from Bugzilla and use Beautiful Soup to parse. Use Apache Tika to parse project API documents in HTML online.
  - Apply and improve VSM, PageRank and HITS algorithm to analyze code, bug reports, and project API specifications.
  - Devise an innovative ranking model to rank all source files for a bug report. The model parameters are learned automatically using  $SVM^{rank}$ .
  - All intermediate data are stored in MySQL databases running on Amazon Relational Database Service (RDS).
- Use Unity to develop educational 3-D mobile games running on iPad devices for a NSF GK-12 project to assist high school teaching. http://books.ohio.edu/
- Use Unity to develop a software visualization tool for visualizing project SVN repository history.

http://vital.cs.ohio.edu/?page\_id=1340

## **Guangdong Materials Group Corporation**

Guangzhou, China

Assistant Manager, Information Technology Dept. May

May 2008 to August 2010

• Build and maintain the local enterprise network for the headquarter and all subsidiaries. Assist in the building and maintenance of the ERP and the eCommerce systems.

### **ZTE** corporation

Shenzhen, China

Hardware Engineer, Storage Product Line August 2006 to December 2007

• Work on the hardware design of a SAS RAID storage server.

#### Beijing Institute of Technology

Beijing, China

Graduate Research Assistant

August 2004 to July 2006

• Develop the embedded software for a signal processing board with FPGA, PowerPC, and DSP integrated. Design the PCB of a power circuit for the signal processing board.

### **PUBLICATIONS**

- 1. **Xin Ye**, Razvan Bunescu, Chang Liu. "Learning to Rank Relevant Files for Bug Reports using Domain Knowledge". *In Proceedings of the 22nd ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2014)*, pp. 66-76, Hong Kong, China, November 2014. (Acceptance Rate: 22.3%, 61 out of 273)
- 2. Chang Liu, Xin Ye, En Ye. "Source Code Revision History Visualization Tools: Do They Work and What Would it Take to Put Them to Work?". *Access, IEEE*, vol.2, no., pp.404-426, 2014.
- 3. Tiao J. Chang, John Bentz, Justin Wiseman, Yanhui Fang, Andrew Copley, Chang Liu, Sertac Ozercan, Xin Ye, Nathan Andre, and Qing Zhu. "A Sustainable Model for Water Resources and Environmental Education". In Proceedings of International Conference on Sustainable Design, Engineering and Construction (ICSDEC 2012), pp. 955-974, Fort Worth, Texas, USA, November 2012.
- 4. Qing Zhu, Yanhui Fang, **Xin Ye**, Tyler Hogue, Chang Liu, Tiao J Chang, Teresa Franklin, Kelly Johnson. "Comparing Learning Outcomes of an iPad Game, In-Class Experiments, and a Field Trip in Water Quality Education" 2014. Submitted to *Computers & Education*.

#### AWARDS

ACM SIGSOFT CAPS Travel Grant, FSE'14	2014
EECS Travel Grant, Ohio University	2014
Section Chief Promotion, Guangdong Matreials Group Corporation	2009
Outstanding Department Awards, Guangdong Matreials Group Corporation	2009
University Scholarship, Beijing Institute of Technology	2000-2004

### TEACHING EXPERIENCE

# Guest Lectures

 "Scalable, High-performance IR using Lucene", CS6900: Information Retrieval, OU

- Fall 2013
- "Experiments: search software repository using TortoiseSVN and TeamWATCH", CS356/456: Software Engineering, OU Spring 2013
- "Experiments: resolve direct conflicts by monitoring workspace awareness", CS356/456: Software Engineering, OU Fall 2012
- "Experiments: monitor workspace awareness by using a software visualization tool", CS356/456: Software Engineering, OU Spring 2012
- "Experiments: search software repository using a software visualization tool", CS356/456: Software Engineering, OU Fall 2011

### SKILLS

### Operating System: Mac OS X, Linux, Windows

Languages: Java, C, C++, Python, SQL, Javascript, PHP, Objective-C, HTML, LaTeX Libraries/Tools: Lucene, Nutch, Solr, Tika, Apache HTTP Server, Tomcat, Servlet, JDBC, JDT ASTParser, NLTK, SV M<sup>light</sup>, SV M<sup>rank</sup>, LibSVM, JUNG, POSIX Threads, OpenMP, OpenCV, U-Boot

Version Control: Git, Subversion, CVS

IDE: Eclipse, Xcode Software: Unity, Matlab Database: MySQL

#### Courses

Design and Analysis of Algorithms, Parallel Computing, Computer Networking, Software Engineering, Medical Image Analysis, Image Understanding, Three Dimensional Software Application, Natural Language Processing, Machine Learning, Information Retrieval, Differential Equations