JON TEDESCO

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SUMMARY

Student, developer, and researcher seeking a challenging, cutting-edge software engineering position at a company with a need for competitive technical skills, problem solving ability, adaptability, determination, and creativity.

EDUCATION

University of Illinois, College of Engineering

M.S., Computer Science *May 2013*

GPA: 3.92

- Enrolled in accelerated 5 year combined BS / MS program
- Master's thesis modeling CoMoTo software similarity graphs as heterogeneous temporal & similarity graphs, to investigate and predict student collaboration patterns, jointly advised by Cinda Heeren and Jiawei Han

B.S., Computer Science, Minor in Mathematics *May 2012*

GPA: 3.98

- Senior Thesis titled *Efficiently Retrieving Relevant Pages for Fully-Qualified Entities*, advised by Kevin Chen-Chuan Chang. Focused on combining query expansion and machine learning techniques to address the novel problem of web search using entities as queries.
- James Scholar honors program, software engineering certificate, specializing in databases and systems

AWARDS

Siebel Scholar 2013

Jump Trading Scholar Scholarship / Fellowship *2011 - 2013*

Crowe Horwath LLP Outstanding Computer Science Student *2011*

Daniel L. Slotnick Scholarship *2011*

Dean's List *2008 – Present*

SKILLS AND COURSEWORK

Current and Completed Coursework:

Data Mining, Machine Learning for Signal Processing, Cloud Computing, Software Engineering Seminar, Compilers & Programming Languages, Computer System Organization, Fundamental Algorithms Machine Learning, Software Engineering, Graph Theory, Text Information Systems, Distributed Systems, Theory of Computation, Database Systems, Operating Systems Programming, Data Structures and C++, Programming Studio

Languages:

JavaScript, Python, PHP, Java, C++, C, C#, SQL, Ocaml, Ruby, HTML, CSS, Matlab

PUBLICATIONS

CoMoTo – The Collaboration Modeling Toolkit *ITICSE '11*

By Charlie Meyer, Cinda Heeren, Eric Shaffer, and Jon Tedesco

Developing Generalizable Principles for Object-Oriented Search Engine Interface Design *UIUC URJ Spring 2010*

By Jon Tedesco and Kim Cuong Pham

EXPERIENCE

Facebook, Menlo Park, CA

Software Engineering Intern *Summer 2012*

- Implemented high-priority internal tool for performance monitoring that propagated user queries from real-time Memcached data store to MySQL-based persistent storage.
- Added user-facing features to news feed and similar unreleased product using PHP, JavaScript, and Facebook's social graph framework.
- Improved performance and interface of core like/comment feedback components of news feed and user profile with client-side rendering using AJAX, PHP, and JavaScript.
- Researched static resource caching using local storage, sessions storage, and IndexedDB

DRW Trading Group, Chicago, IL

Software Engineering Intern *Summer 2011*

- Created open source NPAPI plugin *SockIt*, using C++ Boost-based plugin framework to perform low-level networking using client-side JavaScript to improve performance, improving the flexibility of the WebSockets implementation and arbitrary networking protocols. Using *SockIt*, implemented WebSockets protocol in client-side JavaScript and showed performance improvements over native implementation in high-throughput applications.
- Created JavaScript real-time visualizations of market data to assist trading decisions and strategy-making.
- Researched performance and efficiency of Intel's new AVX instruction set, compilers, and linear algebra libraries for floating point operation intensive applications, particularly for matrix-based algorithmic trading applications.

Bank of America, Chicago, IL

Technology Analyst Intern in Capital Markets & FX Options Ask/GUI Team *Summer 2010*

- Developed GUIs for large-scale applications used for reporting and documentation of Bank of America's FX and options trading in real time.
- Designed and implemented standalone code base for FTP reporting, and helped develop back-end of database-centric applications.

University of Illinois, Urbana, IL

CS 242 Programming Studio Head Teaching Assistant *Fall 2012 – Present*

- Instructs students in best programming practices, styles, and substantive programming projects by leading discussion sections, grades student submissions, and assigns final grades to students
- Manages over 20 undergraduate course staff members, the largest of any course in the department
- Maintains custom software used for discussion section management and grading student submissions
- Writes course assignments and helps establish focus of course curriculum each week

Undergrad CS Research Liaison for P.U.R.E. *Fall 2010 – Present*

- Recruits graduate and faculty mentors, undergraduates mentees, and acts as CS representative of college-wide undergraduate research organization PURE (**P**romoting **U**ndergraduate **R**esearch in **E**ngineering).
- Promotes program through staff relations and presentations in mainstream undergraduate CS classes.

Software Developer for CoMoTo Project *Fall 2010 – Present*

- Overhauled and maintains interactive web-based collaboration visualization using JavaScript, d3.js, Bootstrap, and CoMoTo API
- Maintains Python-driven web application used for analyzing student code submissions, detecting software similarity, and analyzing collaboration patterns of students in undergraduate classes throughout the department
- Implemented and maintains Java application for visually analyzing student collaboration patterns to detect cheating in undergraduate classes

CS242 Programming Studio Undergraduate Teaching Assistant *Spring 2011 – Spring 2012*

CS 125 Introduction to Computer Science Undergraduate Teaching Assistant *Spring 2010 – Fall 2011*