

Brendan Francis O'Connor

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EDUCATION

The Johns Hopkins University

September 2006 - May 2009

Master of Science in Engineering in Computer Science

Thesis Title: **Mnikr: Reputation Construction Through Human Trading of Distributed Social Identities**

President of the CS Honor Society, Upsilon Pi Epsilon

The Johns Hopkins University

September 2004 - May 2008

Bachelor of Science in Computer Science

Graduated with Departmental Honors

The United World College of the American West

September 2002 - May 2004

International Baccalaureate

EXPERIENCE

SimpleGeo Inc.

January 2010 - Present

Platform Engineer

As one of SimpleGeo's first non-founder engineers, I work on everything from hard problems in theoretical Computer Science, to working with potential customers to address their needs (both technical and business), to creating visualizations, both real-time and post-event, of internal (e.g., performance) and customer data for engineer and business use, to creating web services on-the-fly as the enterprise needs.

SET Corporation

August 2009 - January 2010

Senior Research Associate

I worked as a technical lead on software projects in a variety of areas, including natural language processing and user modeling. I also served as technical lead for a project to create an augmented reality application to add real-time data and intelligence analysis to a multi-viewpoint 3D holographic display, using the iPhone 3GS as both view device and interaction tool. These software projects have been for a variety of government agencies, including DARPA, AFRL, INSCOM, and the Department of Defense.

Six Apart

June 2008 - December 2008

Open Platforms Group

I worked as an engineer on the Open Platforms team, dealing with furthering the goals of data portability across technologies and corporate boundaries while maintaining a focus on user control of data. I worked as an intern full-time during the summer of 2008, and then part-time through the remainder of the calendar year.

Sun Microsystems

Summer 2007

Solaris Security Technologies Group

I ported and integrated software into Solaris allowing users to authenticate using true PKCS#11 interfaces, then worked with a variety of teams and people across Sun (despite my status as an intern) to move these smartcard services into Solaris, and remove redundant/deprecated code. I also had the opportunity to work with DTrace to help to update Kerberos performance scripts.

VeriSign

Summer 2006

Security Services

I worked primarily with the Unified Authentication group, specifically with One-Time Passwords; I also did some work for VeriSign Labs (the Advanced Projects Research Group) on the VeriSign Personal Identity Provider. Over the course of 12 weeks, I was responsible for major projects in C#, Ruby, and Java, as well as JSP/Struts/Spring web applications, JNI, C/C++, significant shell scripting, and varied additional technologies. Despite being an intern, I had the honor of winning the VeriSign Labs "PIP Challenge" for integrating one-time password technology with the VeriSign Personal Identity Provider, now available at <http://pip.verisignlabs.com>.

PUBLICATIONS AND INVITED LECTURES

A “Fair and Balanced” Look at Online Privacy in the Age of Location-Based Social Networking

Presented to the students and faculty of the United World College of the American West in their symposium on social networking, April 9-11, 2010.

Mnizr: Reputation Construction Through Human Trading of Distributed Social Identities

O’Connor, B. F. and Griffin, J. L. Proceedings of the 5th ACM Workshop on Digital Identity Management. Presented at the ACM Computer and Communications Security conference in Chicago, IL, on November 13, 2009, and selected as the best paper at the workshop.
<http://doi.acm.org/10.1145/1655028.1655032>

RESEARCH

Mnizr – Master of Science in Engineering Thesis Research, Fall 2008 - Spring 2009

Rapid Airborne TB Detection – Biomedical Engineering Research Team, Fall 2006 - Spring 2009

Wireless Sensor Networks – Hopkins Internetworking Research Group, Spring 2007 - Fall 2007

Robotic Soccer – RoboCup, Spring 2005

SELECTED COMPUTER LANGUAGES AND PROJECTS

Design

While not a designer by trade, I was responsible for all design (computer, printed, video, and audio) for my father’s campaign for judge in Yellowstone County, Montana, and I am often responsible for design of data visualizations at SimpleGeo.

Python

This is the primary language of development at SimpleGeo, where I work in Twisted, Tornado, Django, and a suite of other technologies to serve the needs of the corporation. I have recently begun using it for personal projects as well, including ExoStore and others available through <http://github.com/ussjoin>.

Perl

I used this as my primary language at Six Apart, and often use it now at SimpleGeo, where I am the only engineer using it in a professional capacity. This tends also to be a significant language in my personal research, and played a large part in Mnizr’s development. Open Source contribution: CPAN Module Data::Microformat, as well as a suite of plugins for Movable Type involving some Perl, available through <http://github.com/ussjoin>.

Objective-C

I was the sole Objective-C / iPhone developer on an augmented reality project worth more than US\$10M at SET; I now use it both for personal projects on iOS, as well as occasionally at SimpleGeo.

Ruby

This is my primary language for my personal projects, including the first draft of the ExoCortex project. I used this as my secondary language at VeriSign. I also completed a one-year research project for HInRG (see Research, above) at Hopkins (Fergus/Flidaïs), and several significant personal projects in Rails (ex: Risa), as well as my Master’s thesis project (Mnizr). Open Source contribution: a security patch to Apache Heraldry, and the ExoCortex project, available through <http://github.com/ussjoin>.

Java

This was my primary language both at SET and at VeriSign. I also served as JHU’s Java course TA for five semesters (including two as Head TA), and used Java for many class projects (ex: Doom-MapQuest, Network Security). I also use it on occasion for SimpleGeo.

C#

This was my tertiary language at VeriSign. Also, I completed one semester project on a team of four, totaling 16K lines of code (Creatures on a Screen).

C

This was the language I primarily used at Sun. Also, many academic projects for courses including Operating Systems and one cryptography course.

PHP

I have completed one major personal project (JHTab) in this language, and additional supporting bits of code as needed for other projects.

HTML, CSS, JavaScript, and SQL

I use these on an as-needed basis to support Perl, Java, Ruby, and PHP development.