

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**

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

Six Apart

June 2008 - December 2008

Open Platforms Group Graduate Internship

- 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 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 Graduate Internship

- I ported and integrated software into Solaris allowing users to authenticate using PKCS#11 interfaces.
- I worked with a variety of teams and people to move smartcard services into Solaris, and remove redundant/deprecated code.
- I worked with DTrace to help to update Kerberos performance scripts.

VeriSign

Summer 2006

Security Services Undergraduate Internship

- 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.
- I had the honor of winning the VeriSign Labs "PIP Challenge" for integrating one-time password technology with the VeriSign Personal Identity Provider.

JHU Department of Computer Science

Spring 2006 - Spring 2008 (5 Semesters)

Head Teaching Assistant

- For "Introduction to Programming in Java," I helped to grade homework and examinations for the class, as well as teaching a lab section where students work in pairs to solve programming challenges over just one class period. I served as a Course Assistant for three semesters (Spring 2006 - Spring 2007), and as the Head TA for the course, leading 7-10 CAs, for two additional semesters.

RESEARCH

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

My research in privacy and identity under the direction of Dr. John Linwood Griffin culminated in my Master's thesis as well as the creation of a new reputation trading system, called Mnikr. I now pursue this avenue of research in my spare time.

- Biomedical Engineering Research Team, Detection of Airborne Tuberculosis in Ambient Environments, Fall 2006 - Spring 2009

I worked on the overall systems, assisting with general engineering work as well as consulting

- on computer issues as they arose in the course of our development of a detection device.
- Hopkins Internetworking Research Group, Spring 2007 - Fall 2007
I worked to assist the research on wireless sensor networks through development of new command and control software for wireless testbeds.
 - RoboCup (Robotic Soccer), Spring 2005
I worked on the networking system connecting robots to each other and their coach computer.

SELECTED PROGRAMMING LANGUAGES AND PROJECTS

- Ruby
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/Flidais), and several significant personal projects in Rails (ex: Risa), as well as my Master's thesis project (Mnikr). Open Source contribution: a security patch to Apache Heraldry.
- Perl
I used this as my primary language at Six Apart. 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>.
- Java
This was my primary language for development at VeriSign. I also served as JHU's Java course TA for five semesters, and used Java for many class projects (ex: Doom-MapQuest, Network Security).
- 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.
- SQL
I use this on an as-needed basis to support Perl, Java, Ruby, and PHP development.

ACTIVITIES, AWARDS, AND CERTIFICATIONS

- Upsilon Pi Epsilon (Computer Science Honor Society), inducted Spring 2007
President of JHU Chapter, Fall 2008 - Spring 2009
Vice-President of JHU Chapter, Fall 2007 - Spring 2008
- JHU Magic: The Gathering Club
Triumvir, Fall 2007 - Fall 2008
Advisor, Spring 2008 - Fall 2008
- Association for Computing Machinery
International Member since 2005
Vice-Chair of JHU Chapter, Fall 2005 - Spring 2006
- DCI Certified Level 1 Judge, August 2007 -
- ActivIdentity Certified Professional (CMS), Obtained August 2007
- National Security Scholarship Program, Semi-Finalist, Spring 2007
- Peabody Conservatory Violin Minor Lessons, Spring 2005 - Spring 2009
- National Merit Scholarship, September 2004 - May 2008