

Brendan Francis O'Connor

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EDUCATION

The University of Wisconsin - Madison
Juris Doctor

September 2011 - May 2014 (Ongoing)

The Johns Hopkins University
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

September 2006 - May 2009

The Johns Hopkins University
Bachelor of Science in Computer Science
Graduated with Departmental Honors

September 2004 - May 2008

EXPERIENCE

Malice Afterthought, Inc.
CTO / DSS

2010 - Present

Malice Afterthought provides software and security consulting services to a range of clients, from small businesses to large corporations, in addition to creating and releasing its own commercial and open source software. From January - July 2011, I taught information and network warfare (CNO) to students of the Department of Defense. In January, 2012, we won a DARPA Cyber Fast Track research proposal to fund research entitled "Reticle: Leaderless Command and Control." Please visit <http://www.maliceafterthought.com> for more information.

SET Corporation
Senior Research Associate

2009 - 2010

I worked as a technical lead on software projects in a variety of areas, including natural language processing and user modeling, and 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. These software projects were for a variety of government agencies, including DARPA, AFRL, INSCOM, and the DoD.

Six Apart
Open Platforms Group

2008 (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 as an intern full-time during the summer of 2008, and then part-time through the remainder of the year.

Sun Microsystems
Solaris Security Technologies Group

2007 (Internship)

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. I also had the opportunity to work with DTrace on Solaris Kerberos.

VeriSign
Security Services

2006 (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++, and various 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.

JHU Department of Computer Science
Head Teaching Assistant

Spring 2006 - Spring 2008 (5 Semesters)

- 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.

PUBLICATIONS AND INVITED LECTURES

Sacrificial Computing for Land and Sky

Presented at the ShmooCon security conference in Washington, D.C. on January 27, 2012. Acceptance rate 16.6% (36/216). Average attendee review score: 4.52/5. Video and coverage (including Forbes, Wired, and MSNBC) collected at <http://tinyurl.com/84kmz8c>.

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.

Mnikr: 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. Acceptance rate 33% (7/21) for full papers. <http://doi.acm.org/10.1145/1655028.1655032>

RESEARCH

Mnikr – 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 the creation of a new reputation trading system, called Mnikr, as well as two publications to date.

Rapid Airborne TB Detection – Biomedical Engineering Research Team, 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.

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

I worked to assist the research on wireless sensor networks by developing new testbed command and control software.

FEDERAL GOVERNMENT AND MAJOR ORGANIZATIONAL ENDORSEMENTS

Department of Defense

Security Clearance (Contact for Details)

International Information Systems Security Certification Consortium, ISC²

Associate of ISC²

Department of Homeland Security

IS-{100, 200, 700, 800, 802} - ARES/RACES Series

IS-{139, 230, 235, 240, 241, 242, 244} - FEMA Professional Development Series

IS-{1, 120, 130, 250, 288} - ARRL Advanced Emergency Communications Series

FEMA Professional Development Certificate

Federal Communications Commission

Amateur Extra Radio License, K3QB

Volunteer Examiner (Accredited through ARRL)

Amateur Radio Relay League

Public Service and Emergency Communications Management for Radio Amateurs (EC-016)

Amateur Radio Emergency Communications Course (ARECC)

Full Member, Dane County (Wisconsin) Amateur Radio Emergency Services

SELECTED COMPUTER LANGUAGES AND PROJECTS

Perl - I have used this as my primary language at Six Apart and other positions. This tends also to be a significant language in my personal research, and played a large part in Mnikr'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>. I have also taught courses in this language.

Objective-C - I was the sole Objective-C / iPhone developer on an augmented reality project worth more than US\$10M at SET. At Malice Afterthought, I have released one commercial application, “Ham Exam,” available on the Apple App Store and Android Market.

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 JHU-HInRG and several significant personal projects in Rails (ex: Risa), as well as my Master's thesis project (Mnikr). Major Open Source contribution: a security patch to Apache Heraldry.

C - This was the primary language I used at Sun. I have also taught courses in this language.

Python - This was the primary language of development at some previous positions; I have also worked with Twisted, Tornado, Django, and many other major Python libraries in the course of development.

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).