Michael K. Mabey

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2183 W 7175 S
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EDUCATION

PhD Computer Science, Information Assurance — Tempe, AZ
Arizona State University — GPA 3.89 — May 2016

M.S. Computer Science, Information Assurance — Tempe, AZ
Arizona State University — GPA 3.58 — August 2011
Thesis: Collaborative Digital Forensics: Architecture, Mechanisms, and Case Study

B.S. Computer Science, Information Systems — Logan, UT
Utah State University — GPA 3.25 — May 2009

SKILLS

Computer Forensics	Python	C++	HTML + CSS
Cloud Computing	Virtualization	PHP	MySQL/phpMyAdmin

WORK EXPERIENCE

Research Assistant — Tempe, AZ
Security Engineering for Future Computing (SEFCOM) Lab, ASU — Nov 2009 – Present
Advisor: Prof. Gail-Joon Ahn
Sponsors: Department of Energy and National Science Foundation.

- Designed and implemented the core components of a modular, highly scalable, collaboration-centric digital forensic framework built on the OpenStack cloud architecture. Functions of the components included job scheduling, storage management, and concise evidence representation and transmission.
- Acted as a mentor for an undergraduate student that otherwise would not have pursued a masters degree, and collaborated with him on research for his thesis.
- Researched methods for performing forensic acquisition on Android devices.
- Leader and deployment point of contact of the 2009 and 2010 ASU teams in the International Capture the Flag competition sponsored by University of California, Santa Barbara.

Teaching Assistant — Tempe, AZ
Arizona State University — Aug 2010 – Present

- Fall 2011, Spring 2012, and Fall 2012: Instructor for FSE 100, Introduction to Engineering
- Spring 2011: Assistant to Dr. Gail-Joon Ahn for CSE 467 Data & Information Security
- Fall 2010: Assistant to Dr. Gail-Joon Ahn for CSE 465 Information Assurance

Graduate Student Summer Intern Albuquerque, NM
Sandia National Laboratories May 2011 – Jul 2011

- Helped design a dynamic malware analysis framework built on OpenStack that allows incident responders to define highly customizable analysis environments and use arbitrary analysis tools in either triage or manual analysis mode.
- Wrote Python scripts to automate the setup process for using a SheevaPlug computer as a wireless intrusion detection agent running Kismet.

Graduate Student Recruitment Specialist/Webmaster Logan, UT
Electrical & Computer Engineering Department, USU Jul 2006 – Aug 2009

- Primary responsibilities included maintaining and augmenting the department website using PHP, MySQL, and other basic web technologies like CSS, JavaScript, and an SMTP server.
- Replaced a MS Access database by porting the old data to a MySQL server and creating a set of Python programs with the Dabo framework that interfaced with the database.
- Wrote Python scripts to convert tab-delimited and Excel formatted data to SQL entries.
- Responded to inquiries from potential domestic and international graduate students.

Technician Aid Logan, UT
Electrical & Computer Engineering Department, USU Sep 2006 – Aug 2009

- Built and maintained computers for department faculty and student labs.
- Created backup images of lab computers using Norton Ghost and Acronis TrueImage.
- Protected lab computers using Faronics Deep Freeze.

RELEVANT SCHOOL PROJECTS

- Implemented Python scripts that interpreted MBRs and boot sectors for FAT file systems.
- Wrote a program in Python to scan C and C++ source files for commonly used but insecure function calls, which then suggested to the user more secure yet equivalent library functions.
- Created a web-based interactive learning module designed to teach basic principles of password strength and symmetrical encryption using Python, JavaScript, and Ajax.
- Wrote a program in C++ that accepted a file containing cipher text created with a symmetrical encryption algorithm and attempted to discover the original key and plain text.
- Demonstrated a buffer overflow attack on a C++ program using gdb.
- Configured a Linux machine to be a DNS server, a DHCP server, and a web server that used SSL and authentication via htaccess rules.
- Set up a basic logging system in Linux with Snort and syslog.

REFERENCES

Dr. Gail-Joon Ahn
Title: Associate Professor in Computer Science and Engineering Department at ASU
Relation: Faculty Advisor and Supervisor in the SEFCOM Lab since Nov 2009
Phone: 480-965-9007
Email: Gail-Joon.Ahn@asu.edu

Dr. Chad Mano
Title: Former Assistant Professor in the Computer Science Department at USU
Relation: Computer Security teacher from Aug 2008 – May 2009
Phone: 435-797-0959
Email: chad.mano@usu.edu