Sean Barag

Education Drexel University

Philadelphia, PA

Bachelor of Science Candidate in Computer Engineering

Anticipated Graduation — June 2013

Bachelor of Science Candidate in Electrical Engineering, Electronics

Cumulative GPA: 3.58 | In Major: 3.63

Honors and Awards

Android app "Textspansion" — 5400+ Downloads

"Best Text Expansion App for Android" — Lifehacker.com

Dean's List (5x)

A.J. Drexel Scholarship Recipient

National Society of Collegiate Scholars Member

Experience

Apr - Sep 2012 -

Lockheed Martin MS2 in Moorestown, NJ

Coop Technical Senior — Information Assurance (IA)

- · Scan mission-critical systems for vulnerabilities with automated and manual tools
- · Harden mission-critical systems by applying updates and patches
- · Research new scanning software to comply with changing DoD standards requirements
- · Write Excel plugin to format data for vulnerability database system
- · Coordinate with senior engineers and senior executives for weekly status updates
- · Create departmental wiki for tool documentation and usage tips

Mar - Sep 2011 -

Lockheed Martin MS2 in Moorestown, NJ

Coop Technical Senior — Computer Infrastructure Integration & Testing (CIIT)

- · Wrote Bash scripts to expedite deployment and integration processes
- · Developed, tested, and documented backup procedures for servers, diskless & iSCSI disk-based nodes
- · Worked alongside Sr. Engineers in development of Cisco IOS applet to monitor CF cards containing critical ship status information
- · Wrote VBA script to categorize 4000+ pieces of equipment for proposal
- · Refreshed firmware update procedure deployed to soldiers and used on 100+ systems within LM
- · All work used on US Government Secret classified systems

Mar - Sep 2010 -

ACIN (Applied Communications and Information Networking) in Camden, NJ

Researcher, Directed by Dr. William Regli and Jeff Salvage

- · Configured and tested four-node homogeneous networking testbed
- · Established stable multi-node MANET with WPA2-Preshared Key and IPSec encryption
- · Contributed to VoIP plugin for C2MINCS¹ Situational Awareness software
- · Configured several networks for the 2010 C4ISR² OTM (On the Move) excursion in Ft. Dix, NJ
- · Completed performance testing for commercial 802.11g wireless adapters and military SRW³ JTRS⁴
- · Represented ACIN at the 2010 Team C4ISR Symposium and Expo in Baltimore, MD
- · Communicated directly with project sponsors from US defense contractor CERDEC

Jul 2009 - Mar 2010 -

GICL (Geometric and Intelligent Computing Lab) in Philadelphia, PA

Lab Assistant, Directed by Dr. William Regli

- · Part of team that built and populated Engineering Format Registry
- · Designed and coordinated CD production for 2009 SIAM⁵/ACM⁶ joint conference
- · Set up sandbox server with extended MediaWiki installation
- · Created custom "Semantic Infobox" template using Semantic MediaWiki
- · Utilized SUMO⁷ and UNSPSC⁸ ontologies in a Semantic Template
- · Organized and inventoried journal publications, computer parts, and other hardware

¹Command and Control Mobile Intelligent Net-centric Computer System

²Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance

³Soldier Radio Waveform

⁴Joint Tactical Radio System

⁵Society for Industrial and Applied Mathematics

⁶Association for Computing Machinery

⁷Suggested Upper Merged Ontology

⁸United Nations Standard Products and Services Code

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Projects

 ${\it Textspansion}-{\rm Text\ expansion\ for\ Android\ devices}$

Released June 2011, under continued development

Boot2Gecko — Exploring port to HTC Ace (Desire HD/Inspire 4G)

OS built but won't boot — init.rc is incorrect

Notman — Linux D-Bus notification manager in Python & PyGTK

Proof-of-concept complete, shelved

YADA ("Yet Another Dropbox App") — Hash-based client/server file sync in C

Completed for school assignment, development ceased

MetronOSH — Arduino-based Open Source Hardware metronome (similar to Boss DB-88)

Submitted to 2011 Open Hardware Summit scholarship contest, on indefinite hold

RADuation Cap – 8x8 RGB LED array on graduation cap

In initial design phase, to be used in June 2013

Skills

Languages

- · C
- · Java
- · PLEX
- · Bash & Zsh
- · Python
- · Perl (a bit rusty)

Networking Protocols

- · Gatewaying
- · HTTP
- · Mobile Ad-Hoc Networking
- Multicast
- · TCP/IP
- · UDP
- · WPA & WPA2

Software & Toolkits

- · Linux CLI Toolchain
- · Vim
- · Git, Mercurial, Subversion
- · Android SDK
- · Arduino
- · Wireshark
- · GNU Make

Operating Systems

- · Linux (Arch, RHEL, Ubuntu)
- · Unix (Solaris 9)
- · Mac OS (10.5, 10.6)
- · Windows (95+)