Adam D. Graham

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EXPERIENCE

Senior Full-Stack Software Engineer May 2014 - June 2016
Comprehend Systems
Austin, TX

- Acted as a full-stack engineer on the development of a suite of new SaaS products aimed at enabling clinical trials.
- Responsible for developing the visual and structural components of the single-page application web front-end following responsive and reactive design principles. Used JavaScript and Facebook's React platform to write the components that make up the visual and interactive elements of the site. Used Sass, media queries and breakpoints to implement a responsive design that displayed correctly on both desktop and mobile. Wrote the codebase in a clean and functional manner using libraries such as immutable.js and Underscore.
- Responsible for developing the back-end server application in Scala, building on top of Spray, Akka and Slick. Implemented the back-end code responsible for handling user-generated page and data queries from the front-end in a graceful and efficient manner. Developed additional functionality on the back-end using Storm and Kafka for data generation, messaging and logging.
- Performed testing including writing tests for the front-end code in Cucumber and Jest, as well as implementing tests for the back-end in ScalaTest and Specs2. Used tools such as JProfiler to tune and debug the back-end application, while the native browser debuggers were used to do the same for the front-end.
- Responsible for aspects of devops work such as instance deployments and monitoring with tools such as Ansible, Docker, Marathon, Mesos, haproxy, nginx and Elasticsearch. Ops work included being on-call for week long shifts to triage deployment issues.
- All application work was done following agile development principles.
- Was the first remote engineer at the company and established remote work practices and guidelines for the broader organization.
- Was actively involved in the recruiting and interviewing processes.

Technical Leader Jan. 2010 - April 2014
Cisco Systems, Inc.
Advanced Security Initiatives Group - Research and Development
Austin, TX (December 2010 - April 2014)
Knoxville, TN (January 2010 - December 2010)

- Led and actively participated in numerous quality and security evaluations for a wide array of products resulting in improved product resilience. Methodology involved code audits, development of custom tooling in a wide variety of languages, architecture evaluation, testbed setup, live analysis using security scanners, and new security feature development following an agile-like methodology.

- Contributed as an engineer to an internal open source cloud networking initiative by creating and configuring Linux infrastructure VMs as well creating an automated VM creation program using libvirt.
- Contributing developer on internal Ruby on Rails based tooling projects.
- Developed and gave presentations to upper management and product business units about research findings and recommendations for improving product security and quality, as well as presentations on improving product security to the company as a whole.
- Acted as a thought leader within the business unit and drove internal research direction developing new ideas for future product features and projects.
- Boot-strapped a new Austin-based product security evaluation engineering site to full production including hiring and training.
- Focused on improving the security stance and quality of the Cisco product line from a company-wide process level.
- Developed internal BU processes to guide future work.
- Consistently rated as top 20% or higher in performance reviews.

Software Engineer April 2006 - January 2010
Cisco Systems, Inc.
Knoxville, TN

- Developed primarily in C for IOS, Cisco's real-time embedded operating system as well as various Linux-based Cisco products.
- Developed features and addressed bug fix requests for Cisco IOS core components ($ROMMon, OS - Boot, IDB$).
- Developed and expanded critical features such as ASLR and Object Size Checking for Cisco IOS.
- Envisioned and developed a variety of internal tools in PHP, Ruby and shell script to drive productivity and address internal business unit needs.
- Engaged in low-level hardware-specific feature development, focusing on MIPS and PPC to tighten memory permission mappings at the TLB level.
- Helped deliver massive Cisco IOS infrastructure projects across hundreds of branches in short time-frames.
- Evaluated software for code security and quality.
- Actively mentored new employees through mentoring program.
- Heavily involved in recruiting and interviewing process.

EDUCATION

Master of Science, Computer Science December 2005
University of Tennessee, Knoxville, TN
GPA: 3.75/4.0
Thesis: Obtaining High Precision Results From Low Precision Hardware

Bachelor of Science, Computer Science with Mathematics Minor May 2003
University of Tennessee, Knoxville, TN
GPA: 3.50/4.0