

# Michael Louie

## WORK EXPERIENCE

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### Software Engineer I

Verisign, Inc.  
Reston, VA

February 27, 2017 – Present

#### Consolidated Top-Level Domain, Infrastructure Services

- Developing Java CTLD batch processing reducing number of total and erroring financial bundle transactions by half
- Streamlining CMS processing providing DotGov US GSA clients access to stored business documentation
- Leading virtualization initiative to integrate domain provisioning components into Docker containers
- Improving product development and testing process via automated user interface, protocol, and database fixtures
- Mitigating third-party software security risks by creating and integrating vulnerability detection tools

### Software Engineer Associate

Lockheed Martin  
Manassas, VA

June 6, 2016 – February 3, 2017

#### Acoustic Rapid COTS Insertion System Services

- Designed and implemented event-driven API in Java to develop sonar system manager tools with cluster management and scheduling software
- Prototyped modern data visualization front-end UIs with JavaFX, AngularJS, and D3 to enhance operator control and situational awareness over system processes and compute resource management
- RDT&E with Linux scripts as wrappers to Docker API, Mesos, and Marathon to containerize sonar applications for rapid deployment, security, and scalability in distributed systems

### Software Engineer Intern

EMC Corporation, Data Domain  
Durham, NC

May 26, 2015 – August 12, 2015

- Collaborated with the NFS team to develop multi-threaded implementations of NFSv4 in C to extend product storage functionality
- Consolidated team's debugging Linux shell scripts for extending company-wide testing capabilities in production environment
- Benchmarked data storage modules to target system optimization efforts

## SKILLS / LANGUAGES / TECHNOLOGIES

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- Professional: Java, Bash Shell Scripting, Ansible, Docker Containers, Linux, Unix, HTML, CS, SQL, Gradle, XML, JSON, YAML, Mesos, Marathon, Git, TeamCity, JIRA, Selenium, FitNesse
- Proficient: C, C++, C#, Python, Go, PHP, Amazon Web Services, Google Cloud Platform, Virtual Machines, Windows, Qt, Bootstrap, Material Design, JavaFX, Apache HTTP Server
- Virtualization, Automation, Design Patterns, Object-Oriented Design, Machine Learning, Data Structures, Problem Solving, Agile Development, Research, Architecture, Distributed Systems

## PROJECTS

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- Angena – genealogy program to record and visualize genealogical data to GEDCOM X standard using C++ and Qt
- Total War – real-time strategy video game based on Unity Engine using C#
- OWASP-DC-XMLP – module for OWASP dependency check program to parse and compile vulnerability reports using Java, HTML/CSS, and XML

## EDUCATION

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Blacksburg, VA

Virginia Polytechnic Institute and State University

August 2013 – May 2016

- B.S. in Computer Science, May 2016

**1<sup>st</sup> Place Faculty Choice Capstone**, Virginia Tech Computer Science Undergraduate Research Symposium

“Neuroevolution of Augmenting Topologies and Machine Learning – Finite Solution Spaces”

- Developed, integrated, measured, and presented open-source NEAT implementation effects on training AI to play Connect Four utilizing Java and AWS EC2.