

Nicholas Flanders

SOFTWARE ENGINEER

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Education

Northeastern University

Boston, MA

COLLEGE OF COMPUTER AND INFORMATION SCIENCE

September 2014 - December 2018

- Bachelor of Science in Computer Science · Mathematics Minor
- GPA: 3.99/4 · Dean's List all semesters · Honors Program · Computer Science Teaching Assistant
- *Relevant coursework:* Object-Oriented Design · Algorithms and Data · Compilers · Programming Languages · Networks and Distributed Systems · Database Design · Software Development · Computer Systems · Theory of Computation · Programming in C++ · Logic and Computation · Calculus 3 · Linear Algebra · Probability and Statistics · Cryptography

Experience

Two Sigma

New York, NY

SOFTWARE ENGINEERING INTERN

May - August 2018

- Designed and implemented an HTTP service to expose the abstract syntax tree of a compiled insurance product using Scala with Akka
- Developed a plugin for IntelliJ IDEA to consume the service and provide a drastically streamlined product engineering workflow
- Extended an insurance product compiler to enable the linking of AST nodes and output files to the source files that affected them

Apple

Sunnyvale, CA Cupertino, CA

SOFTWARE ENGINEERING INTERN

May - August 2017 January - May 2018

- Developed features for iCloud Edge: a high-scale Netty-based proxy in points-of-presence around the world
- Designed, developed, and deployed a framework for caching high-traffic public database responses at the edge servers for first-party applications such as Stocks and News
- Designed and prototyped a secure TLS termination architecture using Intel SGX enclaves
- Developed disaster recovery libraries to safely isolate hosts with disk failures and correctly route internal iCloud requests
- Developed and executed performance tests for newly-developed transport layer network protocols

Google

Kirkland, WA

SOFTWARE ENGINEERING INTERN

January - April 2017

- Developed a migration and verification tool to transition advertisers to a new DoubleClick Search platform while ensuring no regressions were introduced during the migration
- Implemented a semantic translation tool to convert abstract syntax trees of a dynamically-typed ad templating language to abstract syntax trees of a statically-typed language

Apple

Sunnyvale, CA

SOFTWARE ENGINEERING INTERN

January - August 2016

- Developed back-end web services for a data aggregation and visualization platform for the Apple Maps Eval team
- Created robust, fault-tolerant microservices using Java, Scala, and Python with the QBit, Play, and Flask frameworks
- Developed internal Python libraries and microservices as part of a custom CI/CD pipeline

Albany Engineered Composites

Rochester, NH

SOFTWARE ENGINEERING INTERN

June - August 2015

- Developed, deployed, and maintained an automated test framework and build server in Python and Perl with a GUI for management

Skills

Languages	Java, Scala, Python, Derivatives of Lisp/Scheme, C++	<i>Familiar with:</i> Swift, Go, C, HTML, CSS, JavaScript
Software Engineering	Object-oriented design, functional programming, concurrency, compilers, programming languages, web services	
Web Frameworks	Akka, Netty, Flask, Play, QBit	
Databases & Storage	Redis, AWS S3, PostgreSQL, MySQL, MongoDB	
Development	Git, Docker, Gradle, Maven, SBT, Unix terminal, Windows Command Prompt, Travis CI, Jenkins	

REFERENCES AVAILABLE UPON REQUEST