

# Nick Spinale

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## EDUCATION

### CARLETON COLLEGE

#### MATH/COMPUTER SCIENCE

Sep 2014 – June 2018 | Northfield, MN

GPA: 3.8

Phi Beta Kappa

#### SELECTED COURSES

Topics in Abstract Algebra

Topics in Elliptic Curves

Programming Languages

Computer Architecture

Operating Systems

Data Mining

Probability Theory

Statistical Inference

Multivariable Calculus

Quantum Computing

### RÉNYI INSTITUTE

#### MATHEMATICS

Aug – Dec 2016 | Budapest, Hungary

GPA: 4.0

#### COURSES

Mathematical Cryptography

Theory of Computing

Number Theory

Graph Theory

Set Theory

## SKILLS

### LANGUAGES

*Most Comfortable:*

Rust • Haskell • C • Python • Go

Shell • Java • JavaScript • TeX

*Comfortable*

OCaml • Coq • C++ • SQL

Scheme • HTML/CSS • R

ASM (x86, ARM, MIPS)

*Familiar:*

Ruby • Magma • Mathematica

### SYSTEMS AND TOOLS

Unix-like environments • Git

GDB • Ghidra • IDA Pro

AWS • Kubernetes • Docker

## LINKS

 [nickspinale.com](http://nickspinale.com)  
 [nick@nickspinale.com](mailto:nick@nickspinale.com)  
 [linkedin.com/in/nickspinale](https://www.linkedin.com/in/nickspinale)  
 [github.com/nspin](https://github.com/nspin)  
 [nick\\_spinale](https://twitter.com/nick_spinale)

## EXPERIENCE

### ARM RESEARCH | SENIOR RESEARCH ENGINEER

October 2018 – February 2022 | Cambridge, UK

- Designed, proposed, led, and executed research projects involving privacy, confidential computing, trusted execution environments, operating systems, and virtualization.

### GOOGLE | SOFTWARE ENGINEERING INTERN

June – September 2017 | Mountain View, CA

- Collaborated with a number of teams, both internal and external (including Istio and SPIFFE), to push the state of the art of security within service-oriented systems towards mTLS-everywhere.
- Developed a system for securely bootstrapping and managing service identities within the Google Cloud Edge infrastructure.

### CARVE SYSTEMS, LLC | HACKNY FELLOW + INTERN

June – December 2016 | New York, NY

- Conducted penetration tests on client systems and products.
- Built tools for discovering vulnerabilities in a variety of systems.
- Maintained servers and services for simulating attacks and streamlining the security assessment and reporting process.

### DATRIUM, INC | SOFTWARE ENGINEERING EXTERN

December 2015 | Sunnyvale, CA

- Collaborated with a team of senior engineers and researchers on a cutting-edge virtualized storage system.
- Built a set of utilities for deserializing intermediate data from a long-running space reclamation process.

### CARLETON COLLEGE | COMPUTER SCIENCE LAB ASSISTANT

September 2015 – Present | Northfield, MN

- Aid fellow Computer Science students in developing problem solving skills and algorithmic intuition.
- Identify, explain, and help correct bugs in students' Python, Java, C, MIPS, and Scheme programs.

### PISMO INVESTMENTS | SOFTWARE ENGINEERING INTERN

June – September 2015 | Waltham, MA

- Contributed to the schematics of an inference engine for modeling and analyzing corporate structure.
- Built and maintained an Enterprise Java backend that interfaced with a relational database and exposed a REST API.
- Designed a web application using Angular.js that demonstrated Pismo's product's modeling capabilities to potential investors.

## AWARDS

2018	David Pollatsek Prize in Computer Science	Carleton College
2016	HackNY Fellow	HackNY
2014	U.S. Presidential Scholar	U.S. Department of Education