# Nicolas Hahn

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## Experience

**Backend Software Engineer** *Percolate*                                          Oct 2018 – Current
- Led the backend work (design, architecture, and implementation) for the Percolate Developer Platform, allowing third party developers to create applications that integrate with the Percolate web interface via custom iframes and securely consume tenant data with fine-grained permission scoping
- Developer on the Percolate Asset Manager, a Go service handling over 40 million file assets used for marketing content and campaigns, serving hundreds of thousands of requests per day
- **Python, Go, Django, SQLAlchemy, MySQL, PostgreSQL, gRPC, Thrift, Docker, OAuth2**

**Participant** *Recurse Center*                                                  May 2018 – August 2018
- Attended a three-month, self-directed education retreat for programmers: `recurse.com`
- Studied neural nets, computer vision, various lisps and lisp interpreter implementations, Rust, Go, C, Lua, operating systems (Berkeley's `CS162`), cryptography (`cryptopals` exercises), microcontrollers (`Teensy`), game development (`PICO-8`), concurrency models in various languages (`concurrent-wc`), security (`Stripe CTF`), contributed to `oilshell`

**Full-stack Web Developer** *Distribute*                                             Jul 2016 – Apr 2018
- Developed custom pricing system: sellers can set individual discounts for specific buyers
- Reduced page load time by 60% by optimizing product image hosting
- Transitioned a 50,000 line codebase from Angular 1 to React
- Backend: **Python, Flask, SQLAlchemy, MySQL, PostgreSQL, AWS EC2, RabbitMQ**
- Frontend: **Typescript, AngularJS, React+Redux, HTML, CSS/SASS**

**Platform Engineer** *Sqor Sports*                                                   Jan 2016 – Jul 2016
- Built developer tools for a 30+ engineer team, wrote REST endpoints
- Set up load testing system for our AWS Lambdas w/ Locust, Seige, enabling us to cut AWS costs 50% through becoming aware of our bandwidth requirements
- Set up ELK logging stack for all production servers
- Wrote image differentiation tool to test a new image processing endpoint against legacy version
- **Python, NodeJS, Bash, AWS EC2, CloudFront, Lambda, ElasticSearch, Chef**

**NLP Research Assistant** *UC Santa Cruz*                                            Jul 2015 – Jan 2016
- Gathered data from various sources, integrated each into a MySQL database
- Wrote a script to process and store one year (53GB) of Reddit data
- Used machine learning techniques to discover features indicating sarcasm
- Built a pipeline for automatically streaming Twitter data for the 2016 SemEval Task 6: Detecting Stance in Tweets: `http://m-mitchell.com/NAACL-2016/SemEval/pdf/SemEval70.pdf`
- **Python, SQLAlchemy, NLTK, Numpy, Scikit, MySQL, Weka**

## Education

**University of California, Santa Cruz**                                                Class of 2015
- B.A. in Computer Science (CS GPA: 3.87) *Graduated with Honors*
- B.A. in Art

## Projects

One Program Written in Python, Go, and Rust                              tinyurl.com/y4spadzn
- Comparison of the experiences of writing the same image differentiation program in three languages

SET Card Game Solver with OpenCV and Python                              tinyurl.com/y6mrlssl
- A Python program that can play the `SET` card game

pi-helmet-cam                                                github.com/nicolashahn/pi-helmet-cam
- Raspberry Pi motorcycle helmet-mounted camera using Python, Bash

py-search-hn                                                  github.com/nicolashahn/py-search-hn
- Execute Hacker News search queries using Python