# Nicolas Hahn

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## Experience

**Backend Software Engineer** *Percolate* — Oct 2018 – Current
- Designed and currently implementing the backend for the Percolate Developer Platform, allowing third party developers to create applications that integrate with the Percolate interface
- Code owner of the Percolate Asset Manager service, handling 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