Nicolas Hahn

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Experience

Backend Software Engineer *Percolate*   Oct 2018 – Current
- Designed and implemented the backend for the Percolate Application Integration Framework
- Owner of our asset manager system: microservice that manages 40 million+ file assets
- **Python, Go, Django, SQLAlchemy, MySQL, PostgreSQL, gRPC, Thrift, Docker**

Participant *Recurse Center (formerly Hacker School)*   May 2018 – August 2018
- Attended a three-month, self-directed education retreat for programmers
- Studied neural nets, computer vision, lisp interpreters, 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, allowing efficient search of months (dozens of gigabytes) of log files
- 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**

Projects

`set-solver`   github.com/nicolashahn/set-solver
- Python program that solves the card game SET using OpenCV from an image of the cards

`diffimg`   github.com/nicolashahn/python-image-diff
- Python library to quantify and visualize the difference between two images

`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

Education

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