

# Nicolas Hahn

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## Experience

- Software Engineer – Meta (Facebook)** Apr 2020 – Current
- (Jun 2021 – Current) Working on developing infrastructure and tools for prototypers creating experiences for augmented reality glasses set to be released in 2024
  - (Apr 2020 – Jun 2021) Worked on a real-time, high-throughput Rust service for storing, manipulating, and serving graph data for tracking web page and app code size
  - Tech: Rust, C++, C# (Unity), Hack (PHP), Typescript, various proprietary FB technologies
- Backend Software Engineer – Percolate** Oct 2018 – Feb 2020
- 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
  - Tech: Python, Go, Django, SQLAlchemy, MySQL, PostgreSQL, gRPC, Thrift, Docker, OAuth2
- Participant – The Recurse Center** May 2018 – Aug 2018
- Attended a three-month, self-directed education retreat for programmers: [recurse.com](https://www.recurse.com)
  - Studied neural nets, computer vision, various lisps and lisp interpreter implementations, Rust, Go, C, Lua, operating systems (Berkeley's CS162), cryptography ([cryptopals](https://cryptopals.com) exercises), microcontrollers ([Teensy](https://www.teensy.com)), game development (PIC0-8), concurrency models in various languages ([concurrent-wc](https://concurrent-wc.com)), security ([Stripe](https://www.stripe.com) CTF), contributed to [oilshell](https://oilshell.com)
- 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 tech: Python, Flask, SQLAlchemy, MySQL, PostgreSQL, AWS EC2, RabbitMQ
  - Frontend tech: Typescript, AngularJS, React+Redux, HTML, CSS/SASS
- Platform Engineer – Sqor Sports** Jan 2016 – Jul 2016
- Built developer tools for a 30+ engineer team, set up fleet-wide server logging, rewrote image processing system using serverless tech
  - Tech: Python, NodeJS, Bash, AWS EC2, CloudFront, Lambda, Elasticsearch, Chef
- NLP Research Assistant – University of California, Santa Cruz** Jul 2015 – Jan 2016
- 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>
  - Tech: Python, SQLAlchemy, NLTK, Numpy, Scikit, MySQL, Weka

## Education

- University of California, Santa Cruz** Class of 2015
- B.A. in Computer Science (CS GPA: 3.9) *Graduated with Honors*
  - B.A. in Art

## Projects

- One Program Written in Python, Go, and Rust** [tinyurl.com/y4spadzn](https://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](https://tinyurl.com/y6mrlssl)
- A Python program that can play the SET card game
- pi-helmet-cam** [github.com/nicolashahn/pi-helmet-cam](https://github.com/nicolashahn/pi-helmet-cam)
- Raspberry Pi motorcycle helmet-mounted camera using Python, Bash
- py-search-hn** [github.com/nicolashahn/py-search-hn](https://github.com/nicolashahn/py-search-hn)
- Execute Hacker News search queries using Python