

## EXPERIENCE

**SABBATICAL**, USA; EGYPT | OCT 2017-PRESENT

*Driven to reflect on years of fast paced personal and professional growth, and in the context of apparently major political change—locally and more broadly—I took time off from structured work environments to explore independent research and technical projects.*

- **Programming:** Attended Recurse Center for 12 weeks; it's a programmers' retreat, formerly known as Hacker School, offering a productive space and diverse, rigorous community where I could work on becoming a radically better programmer. Built a simple shell and HTTP server in C, a BitTorrent client in Python, and an operating system in Rust for Raspberry Pi. Studied OS principles, data structures / algorithms, and concurrency techniques.
- **Politics & Philosophy:** Studied Middle Eastern history and politics, as well as broader work in conflict resolution and political philosophy. Wrote a number of essays exploring these topics, and others.
- **Navigation:** Rode a motorcycle solo across the US, mostly camping along the way. Also traveled Egypt for 6 weeks.

**SMYTE**, SAN FRANCISCO, CA | **ANTI-ABUSE ENGINEER** – MAY 2017-OCT 2017

*As a member of a very small team, I worked with clients to optimize 'blocks' and allows' to meet their goals and improve quality of life for their risk management teams. For the core product, a general rules engine for handling fraud and spam, I designed and built the payments fraud functionality and default rules.*

- Extensively used SQL to analyze operational performance of clients' rules, and load on our infrastructure.
- Contributed new syntax, in JavaScript, to our proprietary SQL-like querying / rule-writing language.
- Managed a number of high stakes client relationships; supported sales efforts by providing data and presenting applications of our product.

**SIGNAL TO NEWS**, BERKELEY INSTITUTE OF DATA SCIENCE, UC BERKELEY | OCT 2016-OCT 2017

*As a volunteer project manager, I worked evenings and weekends with researchers on a news analysis tool built on crowdsourced annotation data.*

- Designed and built wireframes of product workflows including modules for researchers, journalists, and news readers.
- Ran product meetings and weekly check-ins for our technical team.
- Coded template files, in custom XML-like syntax, used in tools for identifying biases and other errors in online publications.

**STRIPE**, SAN FRANCISCO, CA | **RISK ANALYST** – FEB 2014-FEB 2017

*Through account-level intervention and improvements to product and process, my team minimized Stripe's financial exposure to fraudulent and high credit-risk merchants. As the most senior member of the team, I mostly specialized in credit risk management for hardware and manufacturing startups.*

- **Product management:** Led research, design, and building, in Ruby, of new product designed to streamline and automate parts of the chargeback response flow. Projected impacts include >20% reduction in Stripe losses, significant time and money savings to the vast majority of users, and likely to be a top revenue driver. Developed process for evaluating default risk, designed mitigation techniques, and trained a team to implement new credit risk policies. Built tool, in Ruby, that allowed external vendors to add labels to businesses while not exposing sensitive data; designed, and ran effort to add robust industry tags to our portfolio.
- **Data analysis:** Developed and published SQL queries and IPython notebooks studying analyst work load, efficiency, and fraud and credit risk patterns. Built CoffeeScript forms and Ruby dashboards to make it easier for teammates to generate reports and field requests from stakeholders, such as our financial partners.
- **People management:** Trained, audited, and mentored the quality performance and professional development of 6 new hires over ~1 year, and guided up to 20 more analysts on an ongoing basis. Contributed data to headcount and project prioritization models. Represented team in various capacities to execs, new hires, other teams, as well as to external parties in high stakes negotiations.
- **Fraud and credit-risk control:** Developed improved infrastructure to support higher credit risk business models, such as preorder and event campaigns. Regularly monitored fraudulent spikes and credit risk trends following open beta launches in Australia and the Nordics, establishing precedent for controlled expansion to new markets.
- **Internal process improvement:** Investigated ways to streamline team workload with minimal financial impact, resulting in a 30% overall decrease in manual account reviews on a 90 day rolling basis.

**IBM**, NEW YORK, NY | **CONSULTANT** – JUL 2012-OCT 2013

*Supported a variety of client engagements across the financial, retail, and technology sectors, on projects ranging from research, strategy, and financial analysis, to large-scale ERP integration testing.*

## EDUCATION

**COLUMBIA UNIVERSITY**, B.A. PHILOSOPHY+COMPUTER SCIENCE (MINOR) | NEW YORK, NY – 2008-2012

## SKILLS

**Fluent:** Arabic, Python, C, SQL

**Conversant:** Ruby

**Literate:** French, Italian, Haskell, Rust