



# Christopher Shroba

## Software Engineer

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## EDUCATION

- Masters of C.S. **May 2017**
- Bachelor of Science **May 2016**

University of Illinois at Urbana Champaign

## Tech

- Python (Flask/Django) **7 Years**
- C++ **4 Years**
- System Design, gRPC/Protobuf **4 Years**
- SQL (Postgres, Spanner) **6 Years**
- Linux, Bash, Git, Mercurial **7 Years**
- Java **2 Years**
- Go **1 Year**

**In Personal Projects:**  
Kubernetes, Terraform, Ansible  
Javascript, Typescript (Vue)

## Hobbies

- Rock Climbing • Skiing • Backpacking
- Coding • Astronomy • Guitar

## EMPLOYMENT

**Google** **Software Engineer (Infrastructure)** 2017-2021  
Drove the full lifecycle of many new features for a massively distributed internal system processing **TBs of Google Ads data per second** with **thousands of consuming systems**.

Designed and implemented modifications to our data pipeline which **reduced end-to-end p99 latency by over 50%**.

Designed features by gathering requirements from stakeholders, proposing designs, iterating on feedback from my team, and writing **C++, Python, gRPC/Protobuf, Spanner, and Bash** code to implement the features.

Created **rollout and migration strategies** with specific playbooks for possible issues, and configured **monitoring and alerting** for each new feature.

**Instructed clients** on integrating new features into their systems.

Thoroughly vetted code to deploy using unit tests, end-to-end regression tests, and simulating failure scenarios in a development environment.

**Google** **Software Engineering Intern** Summer 2016  
Designed and implemented the **Java backend** for a new tool for fetching payment information for **Google Shopping Express** transactions.

Collaborated with other engineers, designers, and product managers to create a user-friendly experience for the customer support teams that would use the tool.

**Sprout Social** **Software Engineering Intern** Summer 2015  
**Part-time Platform Engineer** 2015-2016

Led design, implementation, and deployment of the **backend** for several new features of the Sprout **web app**, bringing new functionality to Sprout's users.

Built, tested, and managed these features in **Django (Python)**, guided by test-driven development.

Collaborated with frontend & design teams to craft a straightforward and easy-to-use user experience.

**RetailMeNot, Inc.** **Software Engineering Intern** Summer 2014  
Designed and implemented from scratch the backend for a web application to manage RetailMeNot's interview process, using **Python, Flask, and MongoDB**.

Improved the efficiency of the process of tracking candidates and exchanging feedback between hiring managers, recruiters, and interviewers.

**Secured the application** using a robust permissions model and other measures to control access to the app while protecting from vulnerabilities like CSRF.

## SIDE PROJECTS

**Data Explorer** **Personal Data Manager**

Created a multi-node system which pulls in my personal data from dozens of sources (e.g. Spotify, Strava, social media, iMessage, banks, etc.) and makes it available to query, transform, graph, and fuse with each other.

Used this project to enhance my experience with **Typescript** and **Vue.js** on the frontend, **Postgres** and **Python** on the backend, and **Kubernetes** and **Docker** for ops.