

Skills

Programming Languages: Haskell, Python, JavaScript (Node.js, Typescript), React, HTML/CSS

Concepts: REST APIs, Distributed Systems, System Design/Architecture, Optimization

Software: SQL (PostgreSQL, MySQL), NoSQL (MongoDB, DynamoDB), Object storage (S3), AI/LLMs, Git, Linux, AWS, \LaTeX

Spoken Languages: English (Native), Russian (Native), Spanish (Rusty Native), Mandarin (Basic), Hebrew (Basic)

Experience

Mercury, remote from Pasadena, CA

Backend Software Engineer II, Cards

Aug. 2023 → Now

Backend Software Engineer, Cards

Jun. 2022 → Aug. 2023

Fun fact: I learned Haskell on the job from scratch!

- Writing **robust, test-driven Haskell** to support Mercury's IO card and credit underwriting systems to **enable \$XX-XXXM in credit spend** across 1000s of customers
- **Saved 60+ hours** of manual work per month by automating tedious underwriting processes
- Developing efficient and seamless collection tools and automation for mitigating credit risk and enabling new credit products, responsible for **reduction of risk exposure by \$XXM**
- Owning technical specification/design and implementation of new features and automations end to end, with a high degree of independence

Stream, remote from New York, NY

Backend Software Engineer and Architect, SmartMenu

Apr. 2021 → Jun. 2022

- Led design and development of SmartMenu, a first-of-its-kind system that allows for **same-day restaurant onboarding**
- **Integrated Stripe payments** to enable users to subscribe to Stream, and built related API and backend framework
- Deployed **data streaming architecture on AWS** for analytics and big data with **S3, Elasticsearch, and Kinesis**

Uber, Pittsburgh, PA

Software Engineering Intern, Advanced Technologies Group (ATG), Simulation

May 2019 → Aug. 2019 (freshman summer)

- Created an **ETL pipeline for complex, large datasets** of self-driving training data from DynamoDB to PostgreSQL, requiring robust data-syncing solutions
- Developed pruning algorithms in Python for preventing transfer of broken, invalid, and/or redundant data relating to self-driving car testing
- Contributed significantly to a web API written in Go for **self-driving car data analysis** in production

Aspace, Seattle, WA

Lead Software Engineer, Backend

May 2017 → Oct. 2017 (11th – 12th grade)

- Wrote an implementation of **Dijkstra's algorithm** using Node.js for navigation, relying on user location data and data from Mapbox's API
- Deployed MySQL and MongoDB databases for storing parking spot sensor data and user data, respectively
- Designed a **REST API written using Express** to support UX on Android and iOS apps, and for receiving regularly updated sensor data
- Used **Twilio's SMS API** to integrate two-factor authentication into the backend

Projects

vnsh.io – disappearing digital dead-drops for bite-sized secrets, encrypted at rest

2025

Education

University of Pittsburgh, Pittsburgh, PA

B.Sc. in Computer Science

Aug. 2018 → Dec. 2020

Dean's List: Spring 2020, Fall 2020

Interests

Wikipedia Contributor (under username *AvigI*) — over 1.5M all-time aggregate views

June 2016 → Now

Neuroscience/biology, ceramics, finance, music, functional programming, metaphysics/ontology, writing poetry, history, videogames