Alden Hallak

Software Engineer

New York, NY

alden.hallak@gmail.com

(414) 982-5336

linkedin.com/in/alden-hallak

Experience

Google   New York, NY

Sep. 2023 - Present

Software Engineer | NL2SQL tool for highly sensitive NTK financial data
- Designed, implemented, and launched a tool that utilized Gemini to search through NTK databases.
- Utilized LangChain, Boq, Borg, Angular Typescript, Java (with PromiseGraphs). Used Spanner to perform Retrieval Augmented Generation (RAG), built service for Shot and resource metadata.
- Designed a multi-layer highly scalable and modular system: implemented, delegated, launched.
- Assuming 4k users send 10 queries per day, generates savings of $65k/d or $16M/yr in analyst time.
- Developed service to generate slides and sheets on financial queries on specified Business Days.

Feb. 2023 - Nov. 2023

Software Engineer | Insights Engine (Financial Analysis Tool)
- Built data pipelines on top of Apache Beam that ran scheduled exports, converting generated data to Budget/Plan/Commitment tree format, allowing finance users to drill down into cost centers.
- Built tool to run ML/AI analytics on batched data.

Sep. 2020 - Apr. 2023

Tech Lead | Tool for Monetized Product Launches at Google
- Led a small team to build features for a workflow tool for acquiring approval from Tax, Treasury, and Legal services at Google. Used internal proprietary workflow engine, Java (Guice), and Typescript.
- Responsible for handing off to a team of contractors based in India, training replacements.

May 2019 - Aug. 2019

Intern | Google Meet Hardware (GVC)
- Using Google's Mediapipe to build applied ML pipelines on Hangouts Meet.

Internships

Summer 2018

Infosys | ML/NLP Intern   Bangalore/Pune, India
- Built and evaluated vector based and tensor based algorithms for information retrieval, to build an ML search Re-Ranking service. Utilized Tensorflow-Serving and Apache Solr.

Summer 2017

Arteric (Now Relevate Health) | NLP Intern   Summit, NJ
- Utilized machine learning and natural language processing to analyze, categorize (topic modeling), and group pay-per-click / AdWords query data with the goal of identifying topically similar queries.

Education

University of Pennsylvania   Philadelphia, PA

Class of 2020

Bachelor of Arts | Computer Science and English
- Cum Laude
- Extracurriculars: Systems Administrator for WQHS Radio, Director of Tech It Out! Philly, Director for Under The Button (Under the Daily Pennsylvanian), Resident Advisor, Computer Science TA.

Skills & Interests

- Proficient: Java, C#, Typescript, HTML/CSS.
- Familiar: Javascript, Python, C++, C, OCAML.
- Outside of English, I speak French (rusty!), and grew up speaking Croatian and Arabic.
- I also enjoy home automation, using HomeAssistant and building devices with Arduino (C++).
- I've built a (small) video game (Unity, Blender) and released it on Steam, to moderate profit !

Awards & Honors

- M.I.T. Lemelson Finalist 2020
- Penn Innovation Prize Semifinalist 2020
- Google Intern Accessibility Hackathon Winner 2019
- Audience Favorite at Penn Film Festival 2018 🙂