HARMAN BRAR

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EXPERIENCE

Software Development Engineer
Amazon

Sept 2022 - Present Vancouver, BC, CA

- Designed and implemented in **Java** a safe, live-traffic **Tier 1** data migration of **5.09B** items, servicing **231M** requests/month, and saving **>4000 hours per year** of developer time on operational workload via service convergence
- Delivered tools in **React.js** that cut client onboarding times by **92%** and reduced operational support load by **6%**
- Developed a shape-shifting, reusable UI for configurations, eliminating **72 weeks** of development time across 36 tools
- Developed critical components for the organization's first **LLM** initiative, leveraging **Kotlin**, **Vectorization** and **K-NN search**.
- Owned a major operational goal, driving **$308K** in cost optimizations
- Led team's Sprint Retrospective, which has yielded **18** process improvements year-to-date
- Established high level requirements for operational tooling that saves **3 days/quarter** of developer time, and improves turnaround for customers by **2 weeks,** successfully **mentoring an intern** through project completion
- Ideated & contributed 1 of 3 core pillars to organization's 3YP
- Delivered quarterly presentations to leadership and senior engineers on design choices and progress

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Software Development Engineer Intern
Amazon

May 2021 - Aug 2021 Vancouver, BC, CA

- Developed tooling that cut down developer debug times by up to **99%**
- Converted a high-level business need into a succinct, multi-service system design which was reviewed successfully by the organization
- Implemented the design in **Java** and presented data via a beautiful **React.js** web dashboard
- Utilized various AWS services, such as SQS/SNS, CDK & CloudFormation, DynamoDB, and more
- Completed internal Natural Language Processing and Computer Vision trainings

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Research Assistant
Momose Group (Physical Chemistry)

May 2018 - Sept 2018 University of British Columbia

- Automated the visualization of large datasets using **Python** scripts, saving **40 days/year** of manual data handling and plotting
- Optimized Zeeman deceleration simulations, resulting in greater retained particle density available for spectroscopy
- Designed cutting edge ion optics for a microwave trap cavity and collaborated with the engineering department to iron out its development
- Presented optimizations and designs to leading research groups in the field

TECHNOLOGIES

Java Advanced ●●●●●○

JavaScript Advanced ●●●●●○

CI/CD Advanced ●●●●●○

AWS Proficient ●●●●○○

Python Proficient ●●●●○○

Kotlin Proficient ●●●●○○

AI/ML Intermediate ●●●○○○

Flutter Intermediate ●●●○○○

Firebase Intermediate ●●●○○○

EDUCATION

BSc Computer Science
University of British Columbia

Sept 2017 - May 2022

CERTIFICATES

Deep Learning I
Kaggle (2021)

Machine Learning I
Kaggle (2020)

Machine Learning II
Kaggle (2020)

See more at harman-brar.github.io