# Shaishav Shah

#### Education

#### University of Alberta

Sep 2020 - May 2024

Specialization in Computing Science — Business Minor; GPA: 4.0/4.0

Edmonton, Canada

#### Experience

Palantir

May 2023 - Aug 2023

New York City, US

Software Engineer Intern

• Led AIP Assist development by creating specialized **plugins** and selection logic to leveraging proprietary **LLMs**, supporting multi-step queries, and growing usage by **62%**.

- Developed an internal tool to answer developer queries by performing **semantic search** by leveraging sharded codebase, and passing results as context while optimizing for **token limits**.
- Devised **migration** strategies to further decompose user permissions into smaller operations, allowing support for **granular access control** and view-only modes.
- Optimized Java services with caching, proxy objects, and multi-threading, reducing the p99 latency for orchestration endpoints by over 41%.
- Engineered performant, lightweight, and modular pages using Typescript and React, leveraging dynamic imports to reduce initial load times by 14% and enhance user state rendering.

#### Niricson Software Inc.

May 2022 - Aug 2022

Full Stack Software Engineer Intern

Victoria, Canada

- Automated the machine learning workflow in **Python** to dynamically reserve, utilize, and terminate **cloud GPU instances**, saving \$17,000 yearly.
- Introduced a new **geospatial vector data** format for **AWS DocumentDB**, holding over **50**% more data points, while reducing loading time by **80**%.
- Optimized time-complexity of existing and new Javascript algorithms, allowing for users to visualize and customize 500,000+ data points dynamically.
- Designed and created REST API endpoints in **Java Spring Boot**, following **object-oriented** programming and various **software design patterns**.

## **Projects**

Oasis (TreeHacks 2024 Winner)

Feb 2024

- Utilized LangChain and vector databases to build a RAG system allowing users to query, compare, and chat with large, unstructured ESG documents.
- Fine tuned LLaMa-2 LLM to extract metrics and structure data from ESG reports, enabling efficient data indexing, retrieval, and benchmarking across companies.
- Employed robust **text embedding models**, leveraging SentenceTransformers for semantic alignment, supporting side-by-side metric identification.

Meal Drop Jan 2022

- Engineered a **full-stack** application utilizing the **MERN** stack, mitigating food wastage by allowing restaurants to schedule pickups.
- Leveraged **JWTs** to create a **client-side authentication** solution, securing the application and providing **persistent sessions** for users.

### Technical Skills

Languages: Java, C, C++, Python, JavaScript / Typescript, SQL, NoSQL, HTML, CSS

**Technologies:** Spring, ExpressJS, MongoDB, NodeJS, React, Redux, Vue, Conjure **Infrastructure:** AWS EC2, SES / SNS, S3, RDS, EFS, Google Cloud, Firebase, Git