FALAK SETHI

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Education

University of Alberta *Sept 2020 – Dec 2024*
Bachelors Computing Science, Minor in Economics | Certificate in AI & Innovation and Entrepreneurship

Technical Skills

- **Languages & Frameworks:** C#, .NET Core, Python, Java, C++, SQL, JavaScript, TypeScript, HTML, CSS, React, Angular (familiar).
- **Technologies:** RESTful APIs, Docker, Git, Agile/Scrum, UX/UI Design, Shell Scripting, Power BI, Postman.
- **Machine Learning:** LLMs, RAG architecture, NLP, DNN Optimization.
- **Tools & Platforms:** Firebase, MongoDB, Microsoft Azure, AWS, GitHub.

Work Experience

AI/ML Researcher *Jan 2024 – Sept 2024*
PCL Construction & University of Alberta, Edmonton, AB

- Pioneered an **LLM**-based model for site engineers, integrating company documents, govt. regulations, and **HSE** guidelines. The model provides real-time instructions, daily updates, and operational insights, now actively used in planning, executing, and surveying large-scale construction projects and process-piping industries.
- Fine-tuned the **Mixtral-8x7B** model with **RAG** implementation. Initiated the project in collaboration with professors at the University of Alberta and the University of Washington.

Manufacturing Analytics Intern *Sept 2023 – May 2024*
Viatris, Etobicoke, ON

- Developed **Power BI** dashboards and enhanced cloud-based data storage using **Python** and **Microsoft Azure** for manufacturing and supply data, focusing on North American and European markets.
- Conducted **R&D** to design and implement an **AI**-driven model for forecasting future demand and supply trends across global markets, tailored to individual countries.

Full-Stack Developer *Jan 2022 – Aug 2023*
Whistling Solutions, Edmonton, AB

- Designed and developed *Offify*, a mobile app for employee shift scheduling in Alberta's oil and gas sector using **Flutter** and **Dart**.
- Integrated **Microsoft Azure** and **MongoDB** for secure cloud storage and CRM syncing; digitized legacy workflows.
- Enhanced UX with **Microsoft Clarity** and created real-time dashboards using **Power BI**.
- Automated reporting pipelines using **Python** and **SQL**, reducing decision turnaround time by **40%**.
- Built **Power BI** dashboards to track **customer retention**, **product trends**, and **operational efficiency**.

Software Development Intern *May 2021 – Sept 2021*
JCB India Ltd, Pune, India

- Worked on the development of the JCB **LiveLink machine tracking** application to track real-time data while the machines are being utilized by customers.
- Utilized **Java Spring Boot** and **RESTful APIs** for effective interaction between the front and back end, using JSON for data exchange and real-time updates.

Certifications & Interests

Leadership: Vice President Entrepreneurship Club; Aerial Robotics - RoboMaster CE Team.
Certificates and Languages: ASP.NET Core: Building Web APIs, UX Foundations: Prototyping – LinkedIn Learning; Industrial IoT & Predictive Maintenance with Python – Udemy; German A1, A2, B1 (Goethe Institut).