MAHDI RAZA KHUNT

EXPERIENCE

hyperPad Sep 2024 - Present

Software Engineering Intern

- Enhanced LLM-driven caching with Serverless.js and Helicone
- Successfully migrated web app to Rails 7, integrating React and enhancing performance by up to 30%.
- · Currently refactoring codebase for health app in React Native, MongoDB, and TypeScript

Super Jan 2024 - Aug 2024

Operations Intern

- Spearheaded technical integration of CSAT project from **UAT** testing to configuring **Webhooks** to automate workflow till **PROD**.
- Developed an interactive data visualization dashboard using **Dash** and **Plotly** in **Python**, to display **100K+** recorded responses.
- Automated weekly dashboard by leveraging data tools (SQL, Looker, Amplitude, Snowflake) to streamline tracking 10+ KPIs.
- Formatted 100+ HTML pages of knowledge base (FAQ) ensuring CSS consistency across 5+ white-label help centers.

Schoolhouse May 2023 - Aug 2023

Data Analyst

- Utilized SQL, Metabase, & Power BI to extract insights and reports from 150K+ users dataset that informed product decisions.
- Created key KPIs for identifying performance on platform and monitored dashboards to maintain 90%+ user engagement.
- Co-led MARS project initiative to **100+ auditors**, resulting in **70%** improvement in tutoring quality and data collection.

PROJECTS

AniDex | Typescript, React.js, Firebase, Node.js, Gemini 🚱

- Developed a gamified wildlife education tool to make learning about nature fun by interacting with animal species.
- Engineered features for animal recognition through camera and created chatbot components with React and Typescript.
- Integrated GCP and Gemini's Multimodal LLM using Vertex AI that allows users to understand about wildlife conservation.

DSDD (Scotiabank Challenge Winner) | Python, pandas, NumPy, Matplotlib, nltk &

- Performed data analysis by ranking 7000+ customer complaints to enhance Scotiabank's mobile app features.
- Leveraged NLP processes and cutting-edge LLM techniques like Chain-of-Thought, One-shot and Few-shot prompting.
- Placed 3rd out of 100+ participants at Scotiabank Data Science Discovery Days winning \$1000 prize.

FinQuest (BMO Future of Finance Winner) | C#, Unity, XR, 5G 6

- Created a VR/AR interactive escape room to improve financial education by solving challenges in Meta Quest 3.
- Developed **3+** zones with **C#** and **Unity SDK** for immersive experience featuring low latency with **5G** for multiplayer connection.
- Placed **3rd** at Future of Finance Challenge (by BMO, Rogers, Velocity) winning **\$2500** prize.

MA4988 | Python, Arduino, 3D, CAD, Hardware &

- Created an e-waste recycled, efficient, low-cost **3D** printer using FDM technology through research, design, and assembly.
- Utilized Python and Arduino to program interactive functionalities in LCD screen and axis motors to achieve accuracy of 1mm.

EDUCATION

University of Waterloo Sep 2022 – Apr 2027

Bachelor of Mathematics (Data Science, Honours, Co-op)

- CGPA: 3.90
- Scholarships: \$20,000 Faculty of Mathematics Excellence Award, \$5,000 President's Scholarship of Distinction
- Extracurriculars: Faculty Ambassador, Math Tutor, Peer Leader, Undergrad Don, MEF Council, CEMC Marker, Velocity Program

TECHNICAL SKILLS

Languages: Python, C/C++, Typescript, Javascript, HTML/CSS, SQL, R, Racket, LaTeX

Frameworks/Libraries: React, Node.js, Next.js, Three.js, Bootstrap, Tailwind, MUI, pandas, NumPy, Matplotlib, nltk

Tools: Bash, Git, Github, Docker, AWS, GCP, Vercel, Postman, Snowflake, Firebase, Metabase, Looker, Figma