ANUSHEEL CHAPAGAIN

<u>chapagainanusheel@gmail.com</u> | +1-709-691-3985| St. John's, Canada |LinkedIn|

Professional Summary

Results-driven Full Stack Developer with expertise in designing and developing scalable software solutions for construction technology, energy intelligence, and real-time data streaming applications. Adept at building full-stack reporting tools, predictive models, and API-driven microservices to enhance operational efficiency. Skilled in integrating modern technologies with legacy systems, enabling seamless automation and data analytics. Proven ability to lead cross-functional teams, onboard non-technical users, and drive digital transformation in large-scale projects. Strong background in machine learning, database architecture, and system engineering, with hands-on experience in Python, JavaScript, Quickbase, and cloud-based platforms. Passionate about leveraging technology to solve complex industry challenges and optimize business processes.

Professional Experience

SDP GP St. Johns, Canada

Full Stack Developer (Construction Technology)

2023 Aug - Jan 2025

- Developed a full-stack reporting tool that improved data tracking efficiency by 40% for a multi-billion-dollar construction project, enabling real-time insights and streamlined decision-making.. [Technologies used: Python, HTML, CSS, Javascript, MS- Excel, Quickbase, Oracle].
- Designed and developed prediction model to identify the most exhausted labour allowing managers to help delegating craft works to less exhausted craft workers to prevent possible safety incidents.[Tech used: Python - (pandas, scikit-learn, beautifulsoup), Power BI]
- Modelled database from scratch to build a full stack document tracking application to track
 more than 200,000+ construction documents along with thousands of revisions. Onboarded
 70+ non-technical people inside the database systems to collect the data by implementing role
 based access. [Tech used: Quickbase, Python, HTML, CSS and Javascript]
- Developed custom APIs to bridge legacy Oracle-based tools, reducing manual data transfer time by 50% and enabling seamless automation. [Tech used: Python- (flask, fastapi, django rest framework]

GajjbalT Kathmandu, Nepal

Product Engineer

2019 Nov - 2021 Nov

- Designed and developed various marketing web applications to address custom needs of the clients by continuous communication and understanding product requirements while managing UI/UX designers, Front-End and Backend Engineers.
- Lead a team to design real-time grid data streaming full stack application for Nepal Electricity Authority.

Personal Projects

<u>Energy Intelligence:</u> Developed an LLM-powered energy simulation engine that helps global energy consumers reduce consumption inefficiencies by providing Al-driven insights and predictive analytics using Python-Flask, Python-Scikit-Learn, GPT-4, HTML, CSS, and JavaScript. To help global energy consumers understand their energy usage pattern and identify energy saving opportunities.

<u>Weather Forecasting Application</u>: using Python-FastAPI, Python-Unicorn, Python-Scikit-Learn, that fetch the energy intelligence app with future weather conditions according to the user location.

Real-time Grid Data Streaming Application: Built using TypeScript, websockets, JavaScript, HTML, and CSS that allows the admin to connect with various sensors and display their data in real-time.

<u>Al-Radio Application</u>: Capable of voice streaming energy consumption data using Python-Unicorn, Python-WebSocket, websockets and LLM models.

Skills Summary

- Programming Tools: C, C++, Java, Python, HTML, CSS, Javascript, Typescript
- Database Tools: MySQL, Postgres, Supabase, Quickbase, MongoDB
- 3-D Designing Tools: AutoCAD, Solidworks, Autodesk Fusion 360, SketchUp, Bluebeam
- IDE/Al Tools: Ollama, OpenRouter, Cursor, VS-Studio, Intellij
- Project Management & Business Intelligence Tools: MS Office, Power BI

Education

Memorial University of Newfoundland

St. Johns, Canada

MASc. System Engineering

2022 Jan - 2023 Apr

Related activities/Curriculum: Peer-Peer Energy Trading Algorithm using Python (Web3 frameworks)

Kathmandu University

Dhulikhel, Nepal

Bachelor's in Mechanical Engineering

2015 Aug - 2019 Nov

Related activities: Object oriented programming language (C++), Arduino Programming, Simulation Programming, Control Systems

Volunteering/Extracurricular

- Lead group of 4 teams to compete in 2-day Hackathon Showcase Exhibition.
- First responder providing first aid support to the massive earthquake disaster in nepal.
- Actively participated in blood donation campaign
- Lead guitarist for university musical band

References

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