

## WORK EXPERIENCE

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**AI/ML Engineer, Intern** **SYMEND** **Jan 2024**

- Incoming **Full-Time** CO-OP Software engineering student starting this January.
- Will be working on **LLM's** and **model centric server's** developments and **prompt Engineering**.

**Full-Stack Software Engineer** **Energy Simulation Centre | Calgary, AB** **May 2023 – September 2023**

- A **Full-Time** Paid Summer Research Internship.
- Restructured **Geo-Predict** Web App, Using **React.js (Frontend)**, **FAST API(Backend)** & **PostgreSQL**.
- Assignment of putting the **Machine Learning** Plots on **Frontend** using **Chart.js**, **Plotly** & **Tailwind**.
- Use of Soft Sensor for predicting the Drilling Outcomes and doing analysis to predict geothermal outcome.
- Get Data from **BHA CSV's** Using **Pandas**, **NumPy** from **Python** & Plot the graph using **MATPLOTLIB**.
- Used **SQL** for the **PostgreSQL** Database to store the Users Information.

**Undergraduate Research Assistant** **University of Calgary** **September 2023 – December 2023**

- A **Research** where I contributed to the development of **AI** based code generation models.
- Designed and executed tests to distinguish **human-generated code** from **AI-generated code**.
- Seamlessly integrated **PyTorch**, **NLP** and **ML algorithms** into code generation processes enhancing the AI.
- Achieved significant **improvements** in **code quality** and consistency through **fine-tuning** iterations.

**Engineering Learning Assistant** **University of Calgary** **May 2022 – Present**

- Managing university **employee** duties alongside **academics**, offering **course planning assistance** to peers.
- Delivering **tutoring** services with teaching methods for enhanced student **academic performance**.
- Engaging in **initiatives**, **communication** between students & administration, advocating for student needs.

## EDUCATION

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**Calgary, AB** **University of Calgary** **September 2021 – May 2025**  
**BSc. in Software Engineering.**  
**GPA: 3.5/4.0**

## TECHNICAL PROJECTS

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### MPCODE:

- A **Full Stack** Web app for Writing **Code**, **Optimization**, and **explanation**, Powered by **ChatGPT**.
- Used **NEXT.JS** and **Express.js** with **MongoDB** as the Data Base for **POST** and **GET** Methods.
- **ChatGPT API** with **axios** to get the **explanation** and **optimization** from the **OpenAI API**.
- Used **github.workflows** for **devops practices** to **deploy** it to **vercel cloud**.

### CI-CD:

- development process with **Python** calculator project, seamlessly **integrated** with **CI/CD practices**.
- With the power of **GitHub Workflows** to **automate tests**, ensuring **code quality** and **reliability**.
- With automatic deployment to an **S3** bucket using **Terraform**, effortlessly distribute **artifact** files,
- enabling efficient collaboration and **continuous improvement**.

### THE-LEGACY:

- legacies of our beloved legends, Crafted with **React** and powered by **AWS Lambda** and **DynamoDB**.
- cherish their memories through beautiful **MP3** and **PNG** files stored securely on **Cloudinary**.
- power of **AI** as our **ChatGPT API** generates description, and **Amazon Polly** Reads it.
- **API keys** securely stored in **AWS Parameter Store**.

## Languages and Technologies

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- Python, java, C++, Node.js, JavaScript, react.js, AWS-lambda, next.js, tailwind, Ruby, php, YAML, Terraform, SQL
- Visual Studio, Github.workflows, PostgreSQL, ec2, Jenkins, Docker, IntelliJ, Unix, Linux, MS Office, CI/CD.