

# DIEPREYE CHARLES-DANIEL

Edmonton, Alberta

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Engineering  
Co-op Program

## Technical Skills

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**Languages:** HTML, CSS, JavaScript, Typescript, Python, Bash Scripting, C, C++, C#, .NET, SQL, 3ds Max MaxScript

**Developer Tools:** AWS, Docker, Visual Studio, Git and GitHub, Google Cloud Platform

**Technologies/Frameworks:** React, Flask, Nextjs, WordPress, Material UI, Object-Oriented Design

## Education

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**Bachelor of Science in Computer Software Engineering**

*University of Alberta*

Completed Academic Terms: 8

Availability: Starting May 2026

**Expected: May 2027**

*4th Year*

Completed Coop Work Terms: 3 of 5

Work Eligibility: 8 months

## Experience

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**DevOps / Software Engineering Intern**

[Goodmorning.com](https://www.goodmorning.com)

**Jan 2025 – August 2025**

*Edmonton, Canada*

- Engineered features and automation in a large-scale **WordPress/PHP** and **PostgreSQL/MySQL** multi-branded system, including reordering functionality, shortcode enhancements, and branded template fields, improving content management efficiency for multiple teams
- Designed and optimized complex **SQL** queries and **API** payloads, reducing latency by 20–30% across core endpoints and enhancing database performance
- Built a scalable Google Ratings integration using **AWS Lambda** + **Google Cloud** APIs, establishing the baseline for future cloud-based data ingestion workflows
- Developed a Schema Difference Checker (CLI tool) in **Python** and **Bash**, enabling automated detection of live to dev database inconsistencies and Slack alerting, improving reliability of deployments
- Designed and implemented a dynamic product filtering system with optimized algorithms, cutting compilation time by nearly 50% (1320 ms → 750 ms) and delivering Amazon/IKEA-style user experience for e-commerce sites
- Spearheaded migration from Smartsheet → Google Sheets, extending **Google Apps Script** for protected ranges, row operations, and version-control-like functionality, empowering non-technical teams while preserving data integrity
- Collaborated with cross-functional teams (frontend, DevOps, leadership) in **Agile** workflows, consistently delivering ahead of deadlines and working with peers on code optimization and system design

**Software Engineering Fellow**

[Headstarter AI](https://www.headstarter.ai)

**July 2024 – August 2024**

*Hybrid*

- Selected as a fellow to participate in a global program, implementing **LLMOps best practices**, collaboratively building 5+ AI applications and APIs using a wide range of technologies, including **NextJS**, **OpenAI**, **Groq**, **Langchain**, **Pinecone**, and **Stripe API**
- Coached by engineers from Amazon, Bloomberg, and Capital One on **Agile**, **CI/CD**, **Git**, and **microservice patterns**, resulting in improved software development practices and reduced deployment times
- Optimized codebases through implementation of best practices in Git workflows and peer code reviews, reducing technical debt by 15% and improving overall code quality and maintainability

**Software Developer Intern**

[University of Alberta](https://www.universityofalberta.ca)

**May 2024 – August 2024**

*Edmonton, Canada*

- Built a 3D construction project planning software using **C#**, **3ds Max**, and **Maxscript**, providing actionable insights on project phases and improving project visualization for stakeholders
- Developed and implemented an efficient crane path-planning **algorithm**, expediting the design and procurement phases of construction projects, resulting in a 15% reduction in planning time
- Exhibited proper time and project management while designing effective solutions, meeting all project deadlines and improving team efficiency by 20%

**Front End Developer Intern**

[Harveyteck Web Resources](https://www.harveyteck.com)

**August 2022 – December 2022**

*Port Harcourt, Nigeria*

- Developed 7 fully responsive websites with **HTML**, **CSS**, **Bootstrap**, and **Javascript** learning directly under one of Harveyteck's senior full-stack developers
- Incorporated **Netlify** for web hosting and data handling over 12 weeks, **Git** and **GitHub** for version control, and to visualize **collaboration** with my mentor and team lead

## **I.T. Management Intern**

*Ogeyi Place Hotel and Resorts*

**August 2022 – December 2022**

*Port Harcourt, Nigeria*

- Diagnosed and resolved IT issues for 100+ clients in **Win10** environment, achieving 85 percent success rate. Reduced downtime by 20 percent, boosting productivity.
- Assessed and troubleshot server problems caused by malware attacks, email spoofing, and phishing, reducing the number of incidents by over 50 percent.
- Assisted IT staff with various tasks, maintaining a 100 percent success rate, managed **PMS database**, processed paperwork using **Microsoft Word** and **Excel**, and handled client inquiries.

## **Projects**

### **Bullying Classifier Model (Hackathon Project)**

**Feb. 2025**

*PyTorch, Hugging Face Transformers, scikit-learn, Pandas, Numpy, Kaggle, Jupyter*

- Developed and fine-tuned a BERT-based NLP classifier to detect bullying and harmful language in social media text, achieving robust accuracy on test datasets
- Built and tested the model in Python using PyTorch, Hugging Face Transformers, scikit-learn, Pandas, NumPy, and Jupyter Notebooks for experimentation and evaluation
- Designed the architecture for real-time integration with Discord bots and potential vision-based models for camera inputs, enabling multi-modal bullying detection
- Implemented evaluation pipelines with metrics (precision, recall, F1-score) to ensure model reliability and reduce false positives in live environments

### **LookMate**

**Aug. 2024**

*React, Nextjs, Typescript, OpenAI API, AWS, Vercel, Git, GitHub*

- Developed a personalized AI-powered style assistant using **React**, **Next.js**, and **TypeScript**, integrated with **OpenAI API** and **AWS Lambda** for outfit suggestions
- Deployed on **AWS** and **Vercel**, providing a seamless user experience with weather-aware recommendations and a community for sharing trends

### **MemorixAI**

**Aug. 2024**

*React, Nextjs, Typescript, Langchain and Groq API, Firebase, Vercel, Git*

- Developed an AI powered flashcard web app using **Llama 3** from **Groq** as the base model in a team of four where I acted as an **AI Engineer** handling the **REST API**
- Handled the multi-modal input feature and the backend structure of the app using **Langchain APIs** and using **RAG Framework**

### **Keepr App**

**Aug. 2024**

*React, Nextjs, Typescript, OpenAI API, Firebase, Vercel, Git, GitHub*

- Developed a smart pantry management app utilizing **Firebase** as cloud storage
- Added a recipe generation feature powered by **OpenAI** model to give unique recipes with the user's current pantry stock

### **Guide Bot**

**January 2024**

*Python, C++, Google Maps API, OpenRoutes API, Arduino, Git, GitHub*

- Led a 4-member team in the development of an **Arduino UNO**-powered robot using **Python** and **C++** aimed at assisting visually impaired individuals in navigating both indoor and outdoor environments
- Engineered the outdoor navigation functionality of the guide bot utilizing **Google Maps** and **OpenRouteService APIs**, ensuring precise movement between saved locations across Canada

### **UAlberta Student Assistant**

**Nov. 2023**

*Python, Javascript, React, Django, SQLite, Flask, Git*

- Spearheaded a 4-member team initiative to develop a comprehensive web application using **HTML**, **CSS**, **Python**, **Nodejs**, **React**, and **SQL**, aimed at providing essential academic assistance to fellow university students
- Engineered dynamic resources feature leveraging the **Google Books API** and Python-based web scraping techniques with **Flask**, **Selenium**, and **BeautifulSoup** to compile an extensive database of relevant books, courses, course-related events and YouTube videos tailored to student coursework