

Dave Hooda

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EDUCATION

University of Waterloo

Waterloo, ON

Honours Bachelor of Computer Science (BCS) & Business Administration (BBA) Double Degree

Relevant Coursework: Data Structures, Algorithm Design, Discrete Mathematics, Calculus

SKILLS

Languages: Java, Python, C, C++, Solidity, Bash, Racket(Scheme), JavaScript/Typescript, HTML, CSS/SCSS

Frameworks: Node.js, Tailwind CSS, React, Next.js, Django, Express, Wordpress

Tools: VS Code, GitHub, Git, MongoDB, Docker, ROS, Figma, Remix IDE, NPM, Autodesk Inventor, Postman

EXPERIENCE

Software Engineer

January 2025 – Present

UW Robotics

Waterloo, ON

- Optimized **C++ control modules** for a **Mars Rover**, utilizing **linked lists** to manage sensor data
- Reduced **latency** by **20%** by refining and filtering routines for **inter-node** communication using **CAN bus**
- Streamlined deployment by collaborating with a cross-functional team to **containerize** software using **Docker**

Full Stack Software Engineer

March 2022 – Present

Kranium

Toronto, ON

- Developed a collection of **10,000** unique **NFT's** using **Solidity** on the **Ethereum Blockchain**
- Deployed **ERC-721 Smart Contracts** using **Remix-Ethereum IDE** to automate NFT generation
- Developed a user friendly **web app** in **JavaScript** and **React**, increasing engagement
- Raised awareness for climate change, leveraging NFT verification using **Metadata** to manage a Discord server

University of Waterloo MEF

September 2024 – Present

Program Representative

Waterloo, ON

- Managed over **\$190,000** per term for the Waterloo Department of Mathematics, overseeing fund allocation
- **Streamlined budget allocation** by **collaborating** with department heads and student representatives

First Year Representative

- **Elected** to represent over **9000** graduate and undergraduate students in the Math Endowment Fund
- Maximized impact to **research grants** and **student programs** by ensuring effective allocation of the **budget**

Front-End Software Engineer

May 2023 – August 2023

G & B Certified Public Accountants

Toronto, ON

- Improved **UI/UX** experience through a **React**-based web application using **Tailwind CSS**
- Integrated a user-friendly interface with a **JavaScript** back-end, to increase ease of access
- Increased **maintainability** across the codebase using **Tailwind** to reduce the **CSS redundancies**

PROJECTS

FoodFill — Pytorch, Numpy, Transformers, OpenCV, React, Tailwind CSS, Typescript, NextJS

May 2024

- Developed **ML model** using **Linear Regression** with a **71.1% accuracy** to measure food's weight relative to the user's extendable apparatus
- Used a **MongoDB** database to display a calculated calorie count on a **React** and **Tailwind** based user interface using **Computer Vision** to assess food consumption in real time

Destined Dates — Java, Swing, OpenAI API

April 2024 - June 2024

- Integrated **OpenAI API** to provide personalized responses, enhancing realism within simulated dates with an **AI chat bot**
- Designed a dynamic **GUI** in **Java** using **Swing** to create a smooth **UI/UX** experience for the user

LinkedAI — Chrome API, Gemini Nano, HTML, CSS, JavaScript

November 2024

- Developed **Chrome Extension**, integrating **Chrome API** to scrape **LinkedIn** job postings, summarize, and display structured eligibility data
- Created **embeddings** from a **vector database** of job postings with **Gemini Nano model** to assist in **Retrieval Augmented Generation**