

# Divyam Banga

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## TECHNICAL SKILLS

**Data & Analytics Tools:** Excel, VBA, SQL, Power BI, Pandas, NumPy, Matplotlib

**Languages:** Advanced in Python, Java, HTML/CSS; Proficient in Javascript, Dart, C/C++

**Frameworks & Libraries:** Flask, React, Node.js, Bootstrap, TensorFlow, Flutter, Firebase, Figma

**Certifications & Training:** Python CS50, AWS, Oracle SQL

## EDUCATION

### UNIVERSITY OF WATERLOO

Bachelor of Applied Science (BASc)

Waterloo, ON

Sep 2025 - Present

Major in Management Engineering; Computing Specialization Option

Relevant Coursework: Data Analysis, Software Engineering; Operating Systems; Algorithms; Artificial Intelligence

### VINCENT MASSEY SECONDARY SCHOOL

Windsor, ON

Cumulative Average: 96%; 4x Honor Roll with Distinction

Sep 2021 - Jun 2025

Key Extracurriculars: Computer Science Club, Hack Club, Math Club, Chess Club, Cross Country, Model UN

Awards and Distinctions: 5x Cemc contest distinctions, CCC, AMC 10/12, SSPC winner, Masseyhacks winner

## WORK EXPERIENCE

### STEM ROBOTICS CAMP

Windsor, ON

Mentor/Instructor

May 2025 – Sep 2025

- Oversaw 30+ campers, facilitating STEM learning and sports while encouraging active participation.

- Planned and coordinated 5–7 daily sessions, developing strong communication and organizational skills.

### STANGS FOR A CHANGE

Windsor, ON

Financial Executive

Apr 2024 – Jun 2025

- Managed budgeting and financial planning for charity initiatives, using Excel formulas, pivot tables, and charts to track expenses and ensure efficient fund allocation.

- Prepared reports for sponsors, coordinated fundraising events with the executive team, raising \$13K+ for local causes.

## PROJECTS

### CHESS ENGINE

Dec 2024 - Jan 2025

- Developed a chess engine capable of evaluating 100,000+ board positions using minimax algorithm with alpha-beta pruning.
- Implemented using Java Swing with a GUI and an ELO rating of ~1200 against other engines and added move history, position evaluation heuristics, and checkmate detection.

### SCOUTING APP

Sep 2024 - Jun 2025

- Built for FRC Team 4903 to track robot performance during matches and collect real-time data from 10+ matches including goals scored, defense crossed, and autonomous points.
- Used Flutter (Dart) and Firebase for syncing data across multiple devices and visualized insights through interactive charts.

### MY-FARM

Oct 2024

- Developed an interactive web application integrating NASA Earth observation data and rover-collected soil moisture readings to visualize ideal planting zones.
- Made dashboards, chatbot, and simulation tool with a Python, Flask, and MySQL backend and Bootstrap/HTML/CSS frontend, delivering seamless user experience.

## ACTIVITIES

### MIDNIGHT SUN SOLAR CAR TEAM

Waterloo, ON

Firmware Developer

Sep 2025 – Present

- Developed and tested ECU firmware, simulated voltage inputs, and validated communication paths using C/C++.
- Managed software testing workflows and project documentation in Jira/Confluence, analyzing test data to identify trends and improve reliability of control systems.

### FRC 4903 ROBOTICS TEAM

Windsor, ON

Senior Programmer

Sep 2022 – Jun 2025

- Led programming simulation team overseeing 5 programmers, collaborated using git to manage source code.
- Played a key role as on field technician to help reach world championships as well as win southwest international finalists.