

Gautham Venkateshwaran

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EDUCATION

University of British Columbia

Bachelor of Science - Expected Computer Science Major

Vancouver, BC

Sept. 2024 - May 2028

EXPERIENCE

Co-founder

February 2023 - October 2023

CTRL Hacks

Calgary, AB

- Co-founded CTRL Hacks, an independent High School hackathon, and led an executive team of **9 people**
- Built the hackathon website with **Three.js** and **Firebase**, which helped garner over **110 participants**
- Raised over **\$2500** in corporate funding, including sponsors such as *Postman* and *Wolfram Alpha*

Teaching Assistant

September 2020 - June 2021

Spirit of Math Schools Inc.

Calgary, AB

- Taught **20+** Grade 3 students with math **one grade above** their initial grade level
- Tutored students 1-on-1 with 5+ students per class bolstering their creative thinking and problem-solving intuition

Executive Member

September 2022 - June 2024

Churchill VEX Robotics Club

Calgary, AB

- Mentored **100+** students with motion control programming for autonomous robot routines
- Provided **one-on-one assistance** to two junior teams, leading to them qualifying for the **World Championship**
- Organized logistics to raise **\$1200+** through bottle drives & sponsorships

PROJECTS

LifeLink | 1st Place at Medihacks 2024 (490+ participants)

July 2024

- Designed a hardware module that **costs under \$10** using an **ESP32/Arduino** which produce emergency alerts in **third-world countries**, helping **save lives of people with limited internet access**
- Used **LangChain** to generate AI emergency response instructions, **helping assist first-responders save lives**

SeedPod | 1st Place at Hack the Change YYC 2023 (490+ participants)

November 2023

- Used an **Arduino** to design a self-sufficient plant pod which could monitor plant health and autonomously water the plant as needed - **all in under 24 hours**
- Helped design an **Python Flask server**, which detected plant height using **OpenCV** object detection, and sent readings to a **React Web App**

Mecha Mayhem Website | *Next.js, Tailwind, Firebase, Framer Motion*

June 2022 - Present

- Co-developed a **server-side-rendered** website with React, Tailwind & Firebase, with over **5000 visits**
- Used **GCP** and **Google Analytics** to analyze website traffic and estimate event attendance.

Autonomous Path Planner for VEX Robotics | *Fabric.js, GSAP, Tailwind*

October 2023

- Designed a visual path-to-code editor with **Fabric.js** and **Tailwind**, meant to **bolster collaboration between programmers and non-programmers** when building autonomous routines for VEX robots
- Saw use by **40+** members in our school club, and featured in a Pits and Parts Interview by FUN-RECF

AWARDS

Hackathon & Programming Awards

- 3rd Place** at *STEMist Hacks II* (**600+ participants**) - prototyped a **cheap disaster-exploration** rover powered by an **Arduino**, meant to help **save lives** in dangerous situations
- 3rd Place** at *SimpliHacks II* (**400+ participants**) - A **React** app to visually show environmental contributions

VEX Robotics Awards

- Won the **2024 Provincial Excellence Award** (highest judged honor awarded to any single team)
- Qualified for the World Championship **two years in a row** (2023 and 2024)

SKILLS

Languages: Python, JavaScript/TypeScript, HTML/CSS, Java, C++

Tools/Libraries: Tensorflow, OpenCV, Langchain, React, Next.js, React-Native, Tailwind, Three.js, Arduino, Firebase