Gautham Venkateshwaran

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SKILLS

Languages: Python, JavaScript/TypeScript, HTML/CSS, Java, C++
Tools/Libraries: Tensorflow, OpenCV, Langchain, React, Next.js, React-Native, Tailwind, Three,js, Arduino, Firebase

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 bolster 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)

EDUCATION

University of British Columbia — Expected April 2028
Bachelor of Science - Prospective Computer Science Major