

Savir Singh

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EDUCATION

University of Toronto

Honours Bachelor of Science

Toronto, Canada

2025 – 2029

- Intending to pursue Computer Science + Mathematics double major and Applied Data Science minor
- Relevant coursework: Theoretical Calculus With Proofs, Linear Algebra, Introduction to Computer Science, Mathematical Expression and Reasoning for Computer Science

EXPERIENCE

General Robotics

Software Engineer Intern, AI Model Research

Kirkland, USA

September 2024 – December 2024

- Expanded robotic perception system by adding 3 new ML models
- Implemented action recognition model that classified perceived actions as positive or negative
- Enhanced visual odometry performance by 15% by implementing a DPVO-inspired pipeline

University of Waterloo

Software Engineer Intern & Student Researcher

Waterloo, Canada

January 2024 – April 2024

- Worked with a team of 2 PhD students and a professor on a software security project, FuzzSlice
- Added support for C++ repositories to the project, increasing test repository coverage by over 30%
- Built Flask web app that decreased demo prep time by 60% for researchers and presenters
- Produced a demo video and GUI used in the ICSE 2024 Research Track, viewed by 2,000+ attendees

American Inn Ozark

Backend Engineer Intern

Ozark, USA

June 2023 – September 2023

- Wrote automation scripts that reduced room update delays from 30 minutes to under 2 seconds
- Developed a Python Flask real-time reservation notification system that cut customer wait times by over 35%

PROJECTS

Math Contest Repository

🌐 mathcontestrepository.pythonanywhere.com

October 2023 – Present

- Built an online math contest platform that boasts over 450 registered students, more than 700 community members, and 1,400+ problems, generating over 10,000 monthly impressions
- Partnered with Desmos and Spirit of Math
- Added leaderboard, problem tagging, and live contest features, enhancing user retention by nearly 45%

Clonio AI

📱 Clonio AI

May 2024 – Present

- Developed an iOS app turning users into AI chatbots based on previous chat logs; top 25 on US, Canadian, and Swiss App Stores in productivity category
- Achieved 200+ downloads in first week; processed over 20,000 messages in initial 2 weeks
- Implemented fine-tuned Gemini backend to generate custom chatbot personas with over 90% retention on first use
- Interviewed by Village Media; Clonio AI article published in 10+ news websites
- Awarded a \$3,500 grant by the Ontario government to fund development

Independent Research

- Investigated the Odd Perfect Number (OPN) conjecture; independently derived Euler's result on their form
- Collaborated with Carnegie Mellon professor to develop heuristics for generating addition-subtraction chains
- Prototyped algorithm achieving a 12% reduction in chain length vs. traditional methods

April 2024 – Present

Volcano Judge

🔗 savirsingh/volcano-judge

October 2022 – January 2023

- Developed online judge platform supporting Python/C++ to teach algorithmic thinking
- Implemented sandbox for Python programs to secure the platform from attacks

ACHIEVEMENTS

Top 5%, Canadian Computing Competition (Senior)

2024-2025

3x First Place & Internship Invitee, PEO Mississauga Chapter High School Coding Contest

2021-2023

\$200 Second Place Prize From Replit, Hack the North '23 (for building BYTEsense)

2023

13th Place (out of 2400+) in Coding Division, Skills Ontario Competition

2023

SKILLS

Languages: Python, C/C++, Java, SQL, HTML, CSS, JavaScript, Swift

Frameworks/Tools: Flask, Django, React.js, Git, Linux, Docker, Tensorflow, SciPy, PyTorch, NumPy, Matplotlib

Concepts: Algorithms & Data Structures, Security, LLMs, Simulation, ML Inference