

# Jaavin Mohanakumar

hi@jaavin.ca | jaavin.ca | github.com/UnloadingGnat | linkedin.com/in/jaavin

## Skills

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**Proficient** React, TypeScript, Next.js, Tailwind CSS, JavaScript, Python, Java, C#, .NET, PostgreSQL, Azure, MongoDB  
**Familiar** Rust, C, C++, Django, Google Cloud, AWS, Microsoft SQL, GraphQL, Redis, Prisma, React Native, OpenCV, MATLAB

## Experience

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**Software Developer Intern** | IPEX Management Inc. | Oakville, ON May 2023—August 2023

- Implemented file transfer service in **C#** using **.NET** for business-critical process reducing downtime from 14% to 2%.
- Reduced missed promises on API Gateway improving accuracy of item-vendor mapping by 183 basis points on **ASP.NET**.
- Planned migration of a real-time application from **Microsoft SQL** server to **MongoDB** for key business service.

**Software Development Co-Lead** | FIRST Robotics Team 1325 | Mississauga, ON September 2021—June 2022

- Led the design, implementation, and testing of software systems in **Java** for a 120lb competitive robot.
- Innovated in autonomous programming using **PID controllers**, **control systems**, and **computer vision**.
- In this community robotics team previously sponsored by NASA, the robot has won many competitions and was awarded the Excellence in Engineering Award at the FIRST Robotics World Championship in Houston.

## Projects

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**MeGPT** | React, TypeScript, Next.js, Google Cloud [megpt.xyz](https://megpt.xyz)

- MeGPT is a tool to create an AI clone of yourself, in one simple link – making "you" more interactive and discoverable online.
- Reached 518 users and over 2.2K visitors within the first 24 hours of launch.
- Featured on [McMaster University's Faculty of Engineering News](#), highlighting impact in personal and business applications.
- Admitted to \$10K microgrant program from McMaster Engineering.
- Speak to my MeGPT here: [megpt.xyz/jaavin](https://megpt.xyz/jaavin)

**WIFOM?** | Python, OpenCV, Django [youtube.com/watch?v=dVGIT4DPtZg](https://youtube.com/watch?v=dVGIT4DPtZg)

- What's In Front of Me? (WIFOM?) is an AI smart glass that uses machine learning object detection to relay the surroundings real-time to visually impaired users.

**Tweet CoPilot** | React, TypeScript, Next.js, MySQL [github.com/UnloadingGnat/tweetcopilot](https://github.com/UnloadingGnat/tweetcopilot)

- A social media platform that uses ChatGPT to keep your messages within the 280-character limit.

## Leadership

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**Assistant Project Manager** | McMaster Rocketry Team [macrocketry.ca](https://macrocketry.ca)

- Coordinated between the software controls sub-team of 15 members and the project manager to drive successful rocket launch at Spaceport America in New Mexico.
- Orchestrated the team's timelines, coordinating tasks among a rocketry team of over 70 highly skilled members.

**Project Lead** | McMaster Artificial Intelligence Society [mcmasterai.com](https://mcmasterai.com)

- Led a team of 6 to build a fraud detector using convolutional neural networks, trained on publicly available financial data with TensorFlow to predict fraudulent transactions with 90% accuracy at a large scale.

**Committee Member** | McMaster Engineering 1 Operating Committee [eng.mcmaster.ca](https://eng.mcmaster.ca)

- Consulted with the director of engineering 1, administrators, and instructors about enhancing the Engineering 1 program, as a student voice for over 1000 first-year engineering students.
- Reviewed the Canadian Engineering Accreditation Board (CEAB) Attribute Summary to help evaluate and align the school's goals with standards in engineering education.

## Education

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**B.Eng. in Computer Engineering (Co-op)** | McMaster University | Hamilton, ON September 2022—April 2027

- **Awards:** Faculty of Engineering Award of Excellence Scholarship