Akshaj Shrotri

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EDUCATION

McMaster University   Hamilton, ON
Bachelor of Engineering (Software)   *Expected Graduation: April 2028*

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Swift, HTML, CSS, JavaScript, C/C++
Frameworks: React, Node.js, Next.js, Django, Flask, APIs
Developer Tools: Git, UML Diagrams, AWS, VS Code, Visual Studio, PyCharm, MATLAB, Excel, Word, Figma, MongoDB
Libraries: Pandas, NumPy, PyTorch, MoonDream, OpenCV

LEADERSHIP & EXPERIENCE

Computer Vision Engineer   October 2024 – Present
MAC Robomaster   *Hamilton, ON*

- Optimized Computer Vision for Robotics: Designed and implemented real-time object detection using **Python** and tracking to enhance bot accuracy and efficiency.
- **Applied Machine Learning & Debugging**: Refined prediction models, reduced latency, and ensured reliability through testing and iterative debugging.
- Collaborated on System Integration: Worked with a team to integrate **computer vision** with hardware and software for seamless bot functionality.

Full Stack Software Developer Intern   May 2024 - August 2024
Sauka Events   *Brampton, ON*

- Developed a mobile-based website using **React.js, Node.js, MongoDB**, and **Python**, increasing guest ordering efficiency by **25%** and generating an additional **$1,000** in revenue for Sauka Events.
- Developed a QR code-based drink ordering system, cutting order processing time by **2–3 minutes**, handling **10+** orders at once, and boosting customer satisfaction by **15%.**
- Managed tasks effectively using **ClickUp** and participating in daily standups to ensure project tracking and success.

PROJECTS

 Sustain-A-Buy - GDSC Hackathon Best Sustain Hack | *Gemini AI, React, CSS, Cheerio*   Feburary 2025

- Built a Chrome extension, Sustain-a-Buy, that analyzes the carbon footprint of 1M+ Amazon products and recommends 3+ sustainable alternatives per item using **Google Gemini AI.**
- Developed a real-time sustainability analysis pipeline with **JavaScript**, **React**, **Puppeteer**, and **Amazon Product API**, achieving **98%** accuracy in carbon footprint estimation within **2** seconds.
- Won **Best Sustainability Hack** out of **230+** participants and **50+** teams.

 RapidFire Alerts | *NASA FIRES API, OpenStreetMaps API, React.JS, Python, Django*   January 2025

- Developed **RapidFire Alerts**, a real-time wildfire alerts system using the **NASA FIRMS API** using **20,000+** data points, enhancing user safety through tailored guidance powered by **Cohere AI.**
- Engineered an interactive web app with **React and Django**, integrating **OpenStreetMaps**.
- Collaborated in a 3-person team to design, build, and deploy the project within **36 hours** at DeltaHacks XI, creating a **scalable solution** for wildfire-prone regions with potential to impact millions globally.

 ChooseFlix | *TMDB API, React.JS, Node.JS*   December 2024

- Built a dynamic movie search engine with **React.js**, for 100 monthly users.
- Integrated a movie database API to display real-time movie data on dynamic cards and optimized search functionality for **0.5s** queries, boosting user engagement by **20%**.
- Automated movie list updates to ensure users have access to the latest releases effortlessly.

AWARDS

- Google Developer Student Clubs Hackathon - Best Sustainabaility Hack
- McMaster University - Engineering Award of Excellence (**$5000 Scholarship**)