

Om Patel

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EDUCATION

- **University of Toronto** Toronto, ON
• *Bachelor of Science with Specialist (Major) in Computer Science, GPA: 4.0, Dean's List Scholar* *Sept 2021 - May 2025*
Courses: Algorithms and Data Structures, Software Design, Theory of Computation, Operating Systems, Web Programming, Machine Learning, Multivariable Calculus, Linear Algebra

WORK EXPERIENCE

- **Groupe Canam** Toronto, ON
• *Software Consultant* *Feb 2023 - Present*
 - Developed and implemented a full stack application using React, Node.js, SQL, and C#, resulting in streamlined workflows, automated processes, and substantial monthly cost savings of \$15,000
 - Collaborated closely with the client to gather requirements, design customized software solutions, and provide comprehensive training and support, resulting in increased operational efficiency, optimized 3D modeling, and data-driven decision-making capabilities
- **Delta Force Capital** Toronto, ON
• *Co-founder* *Oct 2022 - Present*
 - Co-founded startup that uses PyTorch to develop several models using recurrent neural networks to predict equity/commodity prices and option metrics such as delta, rho, and vega
 - Optimized options investments by using custom models and the Bjerksund-Stensland model along with complex financial data and statistical analysis to deliver actionable insights regarding S&P 500 ETF (\$SPY) options
- **Arlite Technology** San Francisco, CA
• *Software Engineering Intern* *May 2022 - Sep 2022*
 - Designed and implemented cloud-based solutions using Microsoft Azure and Amazon AWS to improve scalability and reliability of web applications
 - Built RESTful APIs with Node.js and Express for seamless communication between front-end and back-end systems
 - Worked with databases such as MySQL and PostgreSQL to design and optimize database schema and queries for large-scale applications
 - Used DevOps tools like Jenkins and Docker to automate builds, tests, and deployments, ensuring fast and reliable releases to production

TECHNICAL PROJECTS

- **Computer Vision based Virtual Steering Wheel**
• *Personal Project*
 - Used Google's MediaPipe framework, PyGame API, and the CV2 library to implement a program that allows the user to control a vehicle in a video game with their hand gestures at a rate of 60 fps
 - Made use of threading and thread synchronization techniques to optimize performance for weaker hardware
 - Used the same technologies to implement a visualizer that allows the user to upload a video of themselves and receive a video that illustrates the ML model's interpretation of their hand placement on screen
- **Boggle Game**
• *School Project*
 - Collaborated in a team and used UML/JavaFX to design and implement a game of Boggle that provides accessibility features such as a contrast/colorblind mode, a braille interface, and a screen reader
 - Used SOLID principles and object oriented programming techniques such as polymorphism, inheritance, and abstraction to write code that is readable, scalable, and easily maintainable

SKILLS SUMMARY

- **Languages:** Java, Python, C, C++, C#, JavaScript, Typescript, MySQL, PostgreSQL, Bash, HTML/CSS, LaTeX, Assembly
- **Developer Tools:** Git/GitHub, Docker, Jenkins, Amazon AWS, Microsoft Azure, Linux, VS Code, Unity
- **Libraries/Frameworks:** Node.js, Vue.js, React.js, Express, Django, PyGame, CV2, MediaPipe, JavaFX