

Sheel Patel

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EDUCATION

Toronto Metropolitan University (formerly Ryerson University)

Toronto, ON

Bachelor of Science in Computer Science (Co-op); Dean's List

Sep 2022 – Present

- *Data Structures* (Algorithms, Java, C, Python (libraries: numpy, pytest, etc), Lisp, Elixir, Rust)
- *Software Engineering I* (SDLC Models, Git, Agile Methods, Jira, MongoDB, Ruby, Go, DMBS)
- *Operating Systems* (Distributed Systems, Multi-tiered, Embedded Systems), UNIX, and Linux (Bash, C, C++, VMs)
- *Database(MySQL, MongoDB)*, Artificial Intelligence(Natural Language Understanding), Machine Learning(Linear Regression)

EXPERIENCE

Full Stack Developer

Sept 2023 – Jun 2024

Practical Applications of Computer Science (TMU Club)

Toronto, ON

- **Developed** a websites with **React** and **PostgreSQL** which increased engagement among students to over 500 monthly views
- Led the development of an application with **Kotlin** and **Firebase** optimizing food usage impacting over **2000 students**.
- Coordinated TerraHack hackathon, managing end-to-end logistics for an event with over **1,000 applicants** and 250 selected participants, ensuring a seamless experience for all involved.
- Guided staff and volunteers, using **Jira** and **Confluence** for timely task completion, enhancing workflow by 80%.

Lifeguard

May 2023 – Sept 2024

Canada's Wonderland

Toronto, ON

- Supervised the safety of over 1000 patrons daily, reducing incident risks by 20% through rigorous protocol enforcement.
- Completed more than 100 hours of advanced safety training, which enhanced my ability to solve problems quickly in high-stress scenarios.
- Managed over 30 successful rescues with precision, demonstrating capacity for calm and efficient crisis management.
- Engaged in seamless collaboration within the lifeguard team, cultivating essential coordination strategies that improved response times by 20% during high-traffic beach days through effective shared protocols.
- Achieved a 100% positive feedback rate from guests, showcasing adaptability and commitment to a customer-first approach.

PROJECTS

Java Chess Game

Java | Java Swing | Algorithm Design (Minimax, Alpha-Beta Pruning) | Git

- Engineered a modular Java-based chess game using object-oriented principles, resulting in a clean and maintainable codebase.
- Developed an interactive chessboard interface with **Java Swing**, integrating smooth animations and intuitive UI elements to enhance player engagement.
- Implemented AI opponent logic with **Minimax** and **Alpha-Beta pruning**, demonstrating strong algorithmic skills and creating an adaptive gameplay experience.
- Integrated advanced chess mechanics such as pawn promotion, castling, and en passant, ensuring a complete and rule-compliant gaming experience.

AI Image Processing

HTML | CSS | Next.js | PostgreSQL | OAuth

- Developed an AI-powered app for plant and insect identification with a retro, Game Boy-style interface using **React** and **Next.js**.
- Integrated **OpenAI API** for advanced image recognition, providing users with detailed insights into identified species.
- Implemented **OAuth** for secure, streamlined user authentication, enhancing data privacy and access control.
- Built camera and image upload features with **HTML5** and **Formik**, enabling real-time image capture, validation, and processing.
- Leveraged **Cloudinary** for efficient image storage and optimization, ensuring fast loading times and smooth user experience.

Event Management System

Vue.js | Azure | Go | Docker | SQLite3 | Git | GitHub

- Developed a management system as to enhance operational efficiency in a simulated dance club environment.
- Built the front-end with Vue.js, creating a user-friendly interface that improved scheduling and attendance tracking efficiency by 40% compared to previous manual methods.
- Employed process mapping techniques to streamline operations, testing alternative solutions to enhance efficiency, while utilizing Go and SQLite3 for robust back-end development, ensuring data accuracy and process compliance, while also leveraging automation for critical tasks such as scheduling.
- Implemented JWT for secure authentication, demonstrating skills in dynamic access control and session management.

SUMMARY OF QUALIFICATIONS

- Proficient in Python, Go, SQL, NoSQL, Java, JavaScript, HTML, OAuth, operating systems, SDLC, data manipulation, Docker, Postman, GraphQL, Azure, XML, JWT, Linux, Kotlin, scripting, CI/CD automation, and REST API endpoints.
- Collaborated with student groups for sprint and PI planning, gathering requirements, demonstrating MVP solutions, and preparing financial and technical documentation, including diagrams and reports.
- Knowledgeable in database technologies, software development tools, programming languages, security technologies, Microsoft Office applications, Kubernetes, Tableau, React, Android Studio, Quality Assurance and User Assurance.
- Familiar with system design architecture, networking, frameworks, machine learning, NLP, Jupyter, business and information architectures, change management principles, and creating professional correspondence and presentations.