Prinsa Patel

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EDUCATION

University of Pennsylvania, *Masters in Computer Science (MCIT)* — Philadelphia, PA
Key Courses: Data structures & software design, Computer systems programming, Algorithms and computation, Software development — Aug 2022 – Dec 2024

University of Toronto, *Honors Bachelor of Science with High Distinction, Biochemistry & Law* — Toronto, ON
Cumulative GPA: 3.83, Dean's List — Sept 2017 – Apr 2021

TECHNICAL SKILLS

Languages: Java, Python (Pandas, Matplotlib), JavaScript, TypeScript, C, SQL, NodeJS, HTML, CSS, Assembly, Bash

Framework and Tools: React, Firebase, Supabase, Git/GitHub, Docker, Vite

Additional: Agile Methodologies, Unit & Integration Testing (JUnit, Valgrind), Power BI, Tableau, AutoCAD

Certification: CodePath Web Development (2023), Data Analyst (2021)

PROJECTS

Civic Central — May – August 2023
- Developed a civic engagement application using **React**, **Typescript**, and **Vite**, leveraging Google Civics **API** and Google Cloud Suite services to provide comprehensive election information based on user input.

Penn-Shredder — May – August 2023
- Designed and developed a shell in **C**, implementing process runtime restriction, input/output redirection, and two-stage pipeline, showcasing advanced **systems programming** skills and low-level system call proficiency.

COVID Data Analyzer — May – August 2023
- Utilized appropriate **data structures**, design principles, and patterns to create and develop a **Java** application that reads and interprets CSV and JSON data files, employing a state machine approach, to extract content and perform analysis based on user input.

Machine Code Assembler / Dis-assembler — Jan – Apr 2023
- Developed efficient and reliable **C** libraries for seamless translation between **assembly** language and binary files, showcasing system-level programming skills and comprehension of software architecture.

Text to Website — Sept – Dec 2022
- Leveraged the power of **Python** and **HTML** to create a program that seamlessly transforms resume text files into visually appealing and professionally formatted HTML files.
- Debugged complex technical issues, such as parsing various data formats and optimizing performance, demonstrating analytical thinking and problem-solving skills.

Single-Player Game Suite — Sept – Dec 2022
- Developed "Blackjack" Solitaire, "Evil" Hangman, Tower Blaster, and Battleship game in **Java/Python**, showcasing ability to manage versions effectively using GitHub.
- Demonstrated expertise in key software design concepts, including comprehensive class structure design, meticulous documentation practices, and rigorous **unit testing**.

PROFESSIONAL EXPERIENCE

University of Pennsylvania — Philadelphia, PA
Teacher Assistant for Software Development Course, Penn Engineering — Jan 2023 – Present
- Facilitating student learning through individual and group instruction, lesson planning, and assessment, as demonstrated by successful contributions to the academic success of **200+** students in MCIT.
- Strong organizational and communication skills by leading weekly debugging sessions, holding office hours, grading, and effectively managing multiple tasks while prioritizing responsibilities as required.
- Excellent interpersonal skills demonstrated by providing constructive feedback to **80+** students relating to their coding projects, collaborating with faculty, and building positive relationships.

Safetech Environmental Consulting Ltd. — Toronto, ON
Special Projects, Department of Engineering — May 2021 – Dec 2022
- Optimized technical product reports by analyzing data, creating clear and effective visualizations using **AutoCAD**, and delivering compelling conclusions to clients, resulting in a **20%** reduction in budget costs.
- Collaborated with cross-functional teams of designers, engineers, and **managed** projects to launch successful client satisfaction strategies, utilizing agile methodologies and industry trends.

Sunnybrook Health Sciences Centre — Toronto, ON
Clinical Research Analyst, Department of Anesthesia — Sept – Dec 2019
- Individually managed **4** anesthesiology research studies by examining daily patient chart reviews (**30+** charts daily) to collect relevant medical history and determine eligibility for each study.
- Maintained and updated RedCap system to capture and create clean databases for all clinical studies so that it can be used for **statistical analysis**.
- Presented and summarized weekly results to senior management to optimize recruitment strategies, which increased total study participants by **54%** across all ongoing studies.

ADDITIONAL INFORMATION

- **Social Impact:** Co-Director for MCIT Student Association (2022-2023), Grace Hopper Attendee (2023), Admissions Ambassador (2023), Sickkid's Child Life Support (2017-2018), Math Kangaroo Coordinator (2018)