Dhanvi Patel
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EDUCATION:

University of Toronto September 2020 – intended 2025

- HBSc. in Mathematics, Computer Science and Statistics
- Relevant Courses: Software Design, Theory of Computation, Software Tools and Systems Programming, Databases and Web Applications, Data Structures and Algorithms, Statistical Analysis, Database Management, Linear Algebra, GitHub + Agile

SKILLS

Languages: C#, Java, Python, C++, HTML, JavaScript, CSS, R, C, TypeScript, LaTeX, Gherkin, SQL
Frameworks: Wing 101 IDE, PyCharm CE, VS code, Eclipse, RStudio, Ripes, Overleaf, React
Practices: Agile, SQL, GIT, OOP, Ubuntu, Terminal, Software Development Life Cycle (SDLC), CI/CD, AWS
Web Tools: Web-flow, Wix, Figma, Canva, Photoshop, Jira, Confluence

EXPERIENCE:

Python Developer Intern, Boeing Jeppesen Canada September 2023 – December 2023

- Used OOP principles in Python to design algorithms that efficiently managed crew planning for airlines.
- Implemented effective code testing using Gherkin for comprehensive quality assurance in a dynamic development environment.
- Managed code using Git on Linux.
- Worked using the Agile development process through Jira and Confluence while working with product managers and software engineers to ensure the performance of the crew management process.

Software Engineer Intern, Compass Digital April 2024 – August 2024

- Developed and maintained front-end architecture for a data analytics web platform using TypeScript and ReactJS, focusing on UI development, data visualization, and user authentication within a monorepo setup.
- Actively participated in Agile ceremonies such as daily stand-ups, sprint planning, and retrospectives. Managed tasks and tracked progress using Jira to ensure timely delivery of features.
- Created and maintained reusable and maintainable React components, ensuring a modular and scalable front-end architecture.
- Utilized TypeScript to enhance code quality and reliability by enforcing strict type checking, reducing the occurrence of runtime errors.
- Applied Material-UI to build responsive and aesthetically consistent user interfaces.
- Wrote unit and integration tests using Jest and React Testing Library to ensure code correctness, simulate user interactions, and validate UI rendering.
- Engaged with cross-functional teams to gather and refine product requirements, contribute to design discussions, and ensure technical alignment with business goals and user needs.
- Managed code contributions through GitHub, created and reviewed pull requests (PRs), and participated in thorough peer reviews to ensure code quality, consistency, and adherence to best practices.

PERSONAL DEVELOPMENT AND PROJECTS:

Python QuadTree | *Pycharm, Python, Trees, Classes*

- Done at the University of Toronto as an assignment for the course CSC148.
- Coded using the PyCharm CE and Wing 101 IDE.
- Used QuadTree to compress images at any given resolution.
- Recursion was used to through quadrants of any given image and compressing them by how much data was stored.
- Tested code using unit testing to ensure it runs bug-free.

Java Game Development | *Java, Eclipse, UML*

- Developed a game of Three Musketeers using Java.
- Basic Java classes were designed on Eclipse.
- Single Responsibility Principle was used to ensure each class is small and performs a singular task.
- UML design patterns such as Proxy and Composite pattern were implemented.
- OOP concepts such as inheritance, composition, and polymorphism were integrated.
- Built upon the game developed with a team using Agile methodology.

Mysh - Customized Shell | *C, Linux, Valgrind, Terminal, Make*

- Developed a customized Linux Shell using C, allowing users to operate it on terminal and replicate the original built-in shell functions.
- Developed to execute several commands by adhering to forking, piping, signals, and backgrounding in C.
- Cohered to networking sockets, allowing servers to be non-blocking.
- Used VS code as the IDE.