

Pareesh Madan

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TECHNICAL SKILLS

- **Languages:** Java, JavaScript, Python, C, C++, C#
- **Technologies:** Docker, Git, GCP, SQL

WORK EXPERIENCE

Software Developer Co-op MANTECH INC.	January 2026 – Present Guelph, ON
▪ Designing and developing Windows desktop software for automated lab instrumentation using C# and .NET	
Undergraduate Research Assistant Arts4PD - University of Guelph	September 2025 – December 2025 Guelph, ON
▪ Built an interactive assessment tool using JavaScript, enabling researchers to analyze social isolation metrics	
Software Engineer Co-op CIBC	May 2025 – August 2025 Toronto, ON
▪ Developed and maintained automated Python test scripts using pytest and unittest to validate core application functionality, ensuring consistent quality and expanded test coverage	
▪ Implemented parallel execution with concurrent.futures and integrated the tests into a Jenkins CI/CD pipeline, reducing execution time by 35%, accelerating feedback cycles, and improving deployment confidence	
Software Developer Intern Bio-imaging Research Solutions Inc.	May 2024 – August 2024 Guelph, ON
▪ Developed a prototype neural network using TensorFlow for image classification to detect diseases in cow lymph nodes, trained on a dataset of over 3,500 annotated DICOM-formatted X-ray images	
▪ Designed and implemented a Python-based image format converter program, streamlining the preprocessing of DICOM images for training the neural network	

PROJECTS

Bazel Open Source Contribution ♦ [github](https://github.com/PareeshMadan/bazel)

- Added a retry mechanism for socket failures and implemented unit tests to improve repo download reliability

Personal Portfolio Website ♦ pmadan.com

- Utilized HTML, CSS, and JavaScript to implement responsive design principles, ensuring optimal viewing across various devices, enhancing accessibility and user engagement
- Used JavaScript to add interactive features, improving portfolio interactivity and functionality

Pathfinding Visualizer ♦ [github](https://github.com/PareeshMadan/pathfinding-visualizer)

- Designed an intuitive user experience with features such as start and end point placement, obstacle creation, and algorithm selection, enabling users to customize and experiment with different scenarios
- Applied OOP to create modular and extensible code, allowing for easy integration of new features

EDUCATION

Bachelor of Computing, Computer Science (Co-op), Business Data Analytics Minor University of Guelph	September 2023 - Present Guelph, ON
▪ Cumulative GPA: 89%	
▪ Relevant Courses: OOP, Data Structures, Software System Development & Integration, Operating Systems	