

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 **January 2026 – Present**
MANTECH INC. Guelph, ON

- Designing and developing Windows desktop software for automated lab instrumentation using C# and .NET

Undergraduate Research Assistant **September 2025 – December 2025**
Arts4PD - University of Guelph Guelph, ON

- Built an interactive assessment tool using JavaScript, enabling researchers to analyze social isolation metrics

Software Engineer Co-op **May 2025 – August 2025**
CIBC 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 **May 2024 – August 2024**
Bio-imaging Research Solutions Inc. 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)

- 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)

- 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 **September 2023 - Present**
University of Guelph Guelph, ON

- Cumulative GPA: 89%
- Relevant Courses: OOP, Data Structures, Software System Development & Integration, Operating Systems