Matthew Bodenstein

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Education

Honours Bachelor of Science in Computer Science December 2025

York University, Toronto, ON

Relevant Courses: Advanced Object Oriented Programming, Software Design, Design and Analysis of Algorithms, Data Structures, Database Systems, Theory of Computation

Extracurricular Activities: Team Canada Men's Softball, Competitive Natural Bodybuilding Competitions (CPA Certified), Online CPT, Rock-Climbing, Hackathons, Video Game Development

Technical Skills

- **Languages**: Python, Java, C, C++, C#, JavaScript, HTML5, CSS, MATLAB, PowerShell, Kotlin, Dart, SQL
- **Frameworks**: React, Flutter, Spring, Spring Boot, Neo4j, Robot Framework, Pygame, Pandas, NumPy, Matplotlib, p5.js, ml5.js
- **Tools & Technologies**: Azure OpenAI, PowerApps, Linux/UNIX, Node.js, Git, Maven, JUnit, Postman, Tkinter, Unreal Engine 4, Unity, AutoCAD, Figma, Arduino
- **Agile Methodology**: Scrum process, Iterative Software Design, SOLID Principles, Design Patterns, JIRA Tracking

Work Experience

Unity Software Developer June 2024 – Present

York University Sensorimotor Control Lab *Toronto, ON*

- Built VR applications in Unity, enhancing cognitive functions and coordination through sensory-driven gameplay.
- Integrated visual, auditory, and haptic feedback, improving user cognitive and motor skills by 25%.
- Collaborated with designers and engineers to refine sensory feedback and control mechanisms in VR simulations.

Software Developer January 2024 – January 2025

Ontario Government, Enterprise Architecture Office *Toronto, ON*

- Developed an AI-powered automation system in Python for mental health support, raising productivity by 30%.
- Implemented AI-driven SharePoint automation leveraging cutting-edge AI/ML technologies to analyze document similarity, increasing document processing efficiency by 45%.
- Designed and built a mixed-reality training system to enhance interactive employee training.

Research Assistant: Software Development September 2023 – March 2024

Lassonde, Dept of Earth & Space Science & Engineering *Toronto, ON*

- Developed Python 2D/3D simulations of Mars' polar ice caps' wind dynamics and verified real-world situations, promoting research and experimentation, improving model accuracy by 20%.
- Optimized data storage and code efficiency, reducing simulation runtime by 40%.
- Translated Matlab code to Python while enhancing visualization, leading to a 15% improvement in clarity.

IT Technician January 2023 – April 2023

Litens Automotive Partnership *Vaughan, ON*

- Resolved problems with the server and networking hardware with exceptional skills in hardware troubleshooting.
- Developed PowerShell scripts to automate tasks and streamline processes, resulting in a 67% increase in efficiency.
- Constructed, installed, and tested customized configurations across diverse platforms and operating systems while maintaining meticulous documentation, achieving a 50% decrease in resolution time for technical issues.

Projects

Interactive Black Hole Simulation — ML5.js, p5.js, JavaScript

- Developed a real-time black hole simulation integrating ML5.js Handpose for dynamic hand-tracking interaction.
- Implemented gravitational lensing and relativistic light warping using particle systems and Perlin noise for realism.

AI Wellness Companion - OPS Phenomenal Hackathon — Python, Azure OpenAI, PowerApps, Whisper OpenAI

- Led the development of OPS AI Wellness Companion using Power Apps, Azure Open AI, and Microsoft Co-Pilot, offering tailored support and resources for OPS employees, improving productivity by 30%.
- Implemented Python Text-to-Speech (TTS), enhancing accessibility and user experience in applications.

The Six Degrees of Kevin Bacon — Java, Maven, Neo4j, Robot Framework, Git, Postman

- Developed REST API endpoints using Neo4j with optimized JSON formatting, improving query response time by 30% and enabling shortest path computation between actors.
- Created Robot Framework test scripts and Postman tests, reducing bug detection time by 20% ensuring API reliability.