Matthew Bodenstein

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EDUCATION

Honours Bachelor of Science in Computer Science   **December 2025**
York University - 3.7/4.0   *Toronto, ON*
Relevant Courses: OOP, OS, Software Design, Design and Analysis of Algorithms, Data Structures, Databases, Theory of Computation
Extracurricular Activities: Maccabi Team Canada Softball, Competitive Natural Bodybuilding (CPA), Online CPT, Hackathons, Game Dev

TECHNICAL SKILLS

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

WORK EXPERIENCE

Chief Technology Officer (CTO)   **May 2025 – Present**
CarGenie.co   *Toronto, ON*
- Led full-stack development of the platform, independently building frontend and backend systems to support scalable car rental and marketplace services.
- Architected and deployed backend infrastructure, utilizing PostgreSQL for relational data storage, and integrating AI connectors, cloud storage, and automated email systems.
- Designed and implemented the UI/UX from scratch, translating business requirements into a seamless, user-friendly interface that improved engagement and usability.

Research Assistant - Unity Software Developer   **June 2024 – August 2025**
York University Sensorimotor Control Lab   *Toronto, ON*
- Developed Unity-based VR applications used by 500+ users, improving cognitive function scores by 25%.
- Integrated visual, auditory, and haptic feedback, improving user cognitive and motor skills by 25%.
- Refined sensory feedback and control mechanisms in VR simulations by collaborating with designers and engineers.

Software Developer Intern   **January 2024 – January 2025**
Ontario Government, Enterprise Architecture Office   *Toronto, ON*
- Developed an AI automation system in Python for mental health support, reducing manual processing time by 30%.
- Implemented SharePoint automation with AI/ML to analyze document similarity, increased 45% in case resolutions.
- Designed and built a mixed-reality training system to enhance interactive employee training using SharePoint Spaces.

Research Assistant - Software Developer   **August 2023 – April 2024**
Lassonde, Dept. of Earth & Space Science & Engineering   *Toronto, ON*
- Developed and optimized 2D/3D Mars wind simulations using Python, improving model accuracy by 20%, reducing runtime by 40%, and enhancing data visualization for clearer scientific insights.

IT Technician Intern   **January 2023 – April 2023**
Litens Automotive Partnership   *Vaughan, ON*
- Automated system tasks with PowerShell, resolved server/network issues, and implemented cross-platform configurations, reducing technical resolution time by 50% and boosting efficiency by 67%.

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 hackathon project using PowerApps, Azure OpenAI, and Whisper for employee wellness.
- Implemented Python Text-to-Speech (TTS), enhancing accessibility and user experience in the application.

The Six Degrees of Kevin Bacon — Java, Maven, Neo4j, Robot Framework, Git, Postman
- Developed REST API endpoints using Neo4j and JSON formatting, enabling shortest path queries between actors.
- Created Robot Framework test scripts and Postman tests, reducing bug detection time by 20% ensuring API reliability.