

# Matthew Bodenstein

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## EDUCATION

### York University

**Honours Bachelor of Science in Computer Science (Software Development Specialization)**

September 2020 - April 2025

Toronto, ON

- Recipient of the York University Entrance Scholarship for the year 2019-2020
- Recipient of the York University Continuing Student Scholarship for the year 2020-2021

## TECHNICAL SKILLS

### Languages and Frameworks

- C, C++, C#, Java, Python, JavaScript, CSS, HTML5, MATLAB, Arduino, PowerShell, React, Flutter, Kotlin, Dart, Spring, Springboot, Neo4j, Robot Framework, Pygame.

### Environments and Tools

- Linux/UNIX, Node.js, Git, Maven, JUnit, Postman, Tkinter, Unreal Engine 4, Unity, AutoCAD, Figma, WordPress, Wix.

## EXPERIENCE

### Research Assistant: Software Development

**Lassonde School of Engineering, Dept of Earth & Space Science & Engineering**

September 2023 – Present

Toronto, ON

- Conducted research and developed Python 2D/3D simulations for wind dynamics on Mars' polar ice caps.
- Oversaw data storage mechanisms within the project and implemented code optimization strategies.
- Crafted simulation scenarios to explore and verify real-world situations, promoting research and experimentation.
- Uncovered valuable insights on Mars's polar ice activity through thorough literature reviews and investigations.
- Translated complex Matlab code into Python and integrated advanced features, significantly enhancing its functionality with new components and advancing the cyclic step modeling project.

### Freelance Web Developer/Designer

**Star House Publishing Inc.**

August 2023 – September 2023

Vaughan, ON

- Improved website with responsive design, leading to 50% higher mobile conversions and 20% lower bounce rates.
- Collaborated with clients, implemented innovative website features, resulting in a 30% increase in user engagement.
- Provided technical support and troubleshooting, resolving website issues for clients and end-users.

### IT Technician Co-op

**Litens Automotive Partnership**

January 2023 – April 2023

Vaughan, ON

- Resolved problems with the server and networking hardware with exceptional skills in hardware troubleshooting.
- Construct, install, and test customized configurations based on various platforms and operating systems.
- Developed PowerShell scripts to automate tasks and streamline processes, resulting in a 67% increase in efficiency.
- Maintained detailed documentation for system builds, configurations, and support procedures, resulting in a 50% decrease in resolution time for technical issues.

### President of Engineering Club

**Westmount Collegiate Institute Engineering Club**

September 2019 – June 2020

Vaughan, ON

- Established and led an Engineering club to teach computer engineering through theory and practical methods.
- Fostered a collaborative and critical thinking environment, providing students with problem-solving opportunities.
- Instructed students on logical propositions, physics, and proper component usage, resulting in a 95% mastery rate.

### Student Engineer/Computer Scientist

**Westmount Collegiate Institute**

September 2018 – June 2020

Vaughan, ON

- Successfully instructed Logic and Syntax in Python and Arduino to over 50 students, resulting in a 98% pass rate.
- Produced a cooperative team environment to develop skills/knowledge, resulting in a 20% growth in productivity.
- Thoroughly tested prototypes and standard products, documenting results in detailed reports.

## PROJECTS

### The Six Degrees of Kevin Bacon | **Java, Maven, Neo4j, Robot Framework, Git, Postman**

- Developed REST API endpoints using Neo4j graph database JSON formatting and used Robot Framework to create test scripts to perform endpoint testing.
- Developed a backend service that computes the shortest path between Kevin Bacon and actors through movies.
- Enhanced the project by implementing a movie recommendation feature based on actors and ratings.

### The-Holy-Grail - 2D Side-Scrolling Video Game | **C#, Unity**

- Developed a 2D side-scrolling game using Unity and C# programming language.
- Designed and implemented various game mechanics and unique features to enhance the gameplay experience.
- Engaged playtesters for bug feedback, incorporating suggestions to enhance game balance and user experience.