

# ZACHARY HUTZ

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## SKILLS

**LANGUAGES:** C, C++, C#, Python, VB.NET, Java, JavaScript, HTML, CSS, Kotlin

**LIBRARIES AND FRAMEWORKS:** .NET, Flask, Node.js, React.js, NumPy, Pandas, scikit-learn, PyTorch, TensorFlow, Keras, jQuery, Tailwind

**OTHER:** MySQL, SQLite, PL/SQL, Docker, Git, Microsoft Azure, Linux, Unity, Arduino

## EDUCATION

### Honours Bachelor of Computer Science

📍 Windsor, ON

University of Windsor

📅 September 2020 - December 2024

- Mathematics minor
- Relevant courses include Object-Oriented Programming, Data Structures and Algorithms, Web Development, Software Engineering, Artificial Intelligence, Linear Algebra, and Calculus I/II

## EXPERIENCE

### Research ML Developer

📍 Windsor, ON

University of Windsor

📅 September 2022 - Present

- **Designed custom algorithms** to sort and split data using **NumPy and Pandas**
- Implemented machine learning algorithms such as decision trees, k-nearest-neighbours, and random forest for use with **20+ different datasets** using **scikit-learn**
- Built recurrent and convolutional neural networks for data classification using **TensorFlow and Keras**
- Researched and tested the feasibility of **Explainable AI** for a data science project

### Teaching Assistant

📍 Windsor, ON

University of Windsor

📅 January 2022 - Present

- Conducted labs, held office hours, and graded assignments and examinations for **4 undergraduate courses**

### Software Developer Intern III

📍 Windsor, ON

MNP Digital

📅 September 2023 - December 2023

- Updated and maintained a physician privilege management system using **ASP.NET, VB.NET, jQuery, and Oracle PL/SQL**
- Built and maintained payment infrastructure for **2 clients** using **Microsoft Power Apps**

### Software Developer Intern II

📍 Windsor, ON

MNP Digital

📅 January 2023 - April 2023

- Performed **static and dynamic application security testing** on various codebases
- Researched and implemented software security analysis tools such as **SonarQube and OWASP ZAP** in various **CI/CD** configurations
- Diagnosed issues in a **Python** application built with **Flask and Pandas**
- Created a rapid web application development proof-of-concept using **Oqtane and Blazor**

### Software Developer Intern I

📍 Windsor, ON

MNP Digital

📅 May 2022 - August 2022

- Contributed to the development of a **web API** used by over **270,000 employees and millions of customers** using **C# and ASP.NET**
- Updated and maintained **2 websites** using **VB.NET and JavaScript**

## PROJECTS

### Stock Trading Simulator

- Full-stack web application for paper trading with **user authentication**
- Written with **C#, Python, Blazor, Flask, SQLAlchemy, and Chart.js**