ZACHARY HUTZ

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SKILLS

LANGUAGES: C, C++, C#, Python, VB.NET, Java, JavaScript, HTML, CSS, Kotlin, SQL
LIBRARIES AND FRAMEWORKS: .NET Core, Flask, Node.js, React.js, NumPy, Pandas, scikit-learn, PyTorch, TensorFlow, Keras, jQuery, Tailwind
OTHER: MySQL, SQLite, Docker, Git, Microsoft Azure, Low-code, 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

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**

Research ML Developer
📍 Windsor, ON

University of Windsor
📅 *September 2022 - September 2023*

- **Designed custom algorithms** to sort and split data for **2 datasets** using **NumPy and Pandas**
- Implemented machine learning algorithms such as **decision trees, KNN, and random forest** for use with a dataset with **20+ features and 500,000+ instances** using **scikit-learn**
- Built **LSTM and convolutional neural networks** for data classification using **TensorFlow and Keras**
- Researched and tested the feasibility of **Explainable AI** in machine learning and deep learning settings

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**

Teaching Assistant
📍 Windsor, ON

University of Windsor
📅 *January 2022 - April 2024*

- Conducted labs, held office hours, and graded assignments and examinations for **3 undergraduate courses**

PROJECTS

Stock Trading Simulator

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