David Hu

(647)-535-2937 | hu.david.dh@gmail.com | linkedin.com/in/davidhu8 | github.com/itsdavidhu
itsdavidhu.github.io/Portfolio-Website/

Education

University of Toronto Toronto, ON
Honours Bachelor of Science: Computer Science Specialist, Mathematics Minor *Sept. 2021 – April 2026*

Relevant Courses: Software Engineering, Software Design, Algorithms Design and Analysis, Software Tools and Systems Programming, Machine Learning, Artificial Intelligence, Databases

Technical Skills

Languages:	Python, Java, C, SQL, JavaScript, HTML/CSS, Bash, Assembly
Frameworks:	React, Flask, JavaFX, JUnit, pytest, Pygame
Developer Tools:	Git, Microsoft Azure, Linux, PostgreSQL, Selenium, VS Code
Libraries:	pandas, NumPy, Matplotlib, scikit-learn, OpenCV, TensorFlow

Experience

Software Engineer Sept. 2024 – Present
Knowlecy Technologies Inc. *Toronto, ON*

- Developed an AI recommendation engine that analyzes metadata to personalize academic paper suggestions.
- Engineered data pipelines with Python and PostgreSQL to automate the ingestion and processing of user reading history, search behavior, and metadata.
- Applied clustering algorithms on paper embeddings and user data to enhance recommendation relevance.
- Worked in an agile environment with GitHub and Jira for version control, collaboration, task tracking, sprint planning, and bug reporting.

Information Technology Intern May 2024 – Present
Mold-Masters Limited *Georgetown, ON*

- Managed the IT help desk by troubleshooting technical issues related to hardware, software, and networks for over 1,000 employees, while maintaining a resolution rate of over 90% within 48 hours.
- Maintained and updated internal IT documentation, creating detailed installation and troubleshooting guides that streamlined processes and reduced ticket escalation by 20%
- Automated IT processes by developing a Python script that web-scraped and analyzed over 9,000 help desk tickets

Machine Learning Intern Jan. 2024 – Mar. 2024
M2M Tech *Vancouver, BC*

- Designed and trained classification models, leveraging Microsoft Azure for model deployment at scale.
- Preprocessed and curated large datasets consisting of over 10,000 data points, and optimizing them for machine learning models by cleaning, transforming, and feature engineering.
- Evaluated and fine-tuned model performance by optimizing hyperparameters and cross-validating to achieve high accuracy and improve robustness in real-world applications.

Projects

PokeCardtel | *DeerHacks 2024* Python, OpenCV, Flask, TensorFlow, React Native

- Developed a full-stack app for real-time Pokémon card grading, utilizing React Native, Python, and Flask.
- Processed over 40,000 card images using Python and OpenCV, applying various image processing techniques such as resizing, filtering, and edge detection to prepare the data for machine learning model training.
- Trained a Convolutional Neural Network (CNN) using TensorFlow and the VGG16 architecture, achieving 90% accuracy in grading Pokemon cards.

StockThePast Java, JavaFX, Git, Agile Methodologies

- Designed and implemented a stock market simulation application, which allows users to engage in simulated trading scenarios to learn about stock market dynamics.
- Utilized Java, object-oriented programming (OOP), and JavaFX to create an interactive application.
- Employed agile methodologies and GitHub within a team of four for efficient project management.
- Applied design patterns aligned with SOLID principles to enhance application functionality and scalability.