

in suns61

Sept 2023 – Sept 2024

shiyunsun.github.io/hello/

Education

Master of Engineering

University of California, Los Angeles, USA

Major: Artificial Intelligence

Bachelor of Applied Science

McMaster University, Canada *May 2019 – May 2023*

Major: Honours Computer Science

Graduated with Distinction

GPA: 3.96/4

Technical skills

Programming Languages Python, Java, C, C++, Haskell **Version Control** Git, JUnit, pytest, Doxygen

Assembly NASM, RISC-V

Database SQL

Web Development JQuery, JavaScript, HTML, Django

PyTorch, TensorFlow, scikit-learn, NumPy ML/DS

Other Bash, Makefile, Latex

Relevant Coursework

COMPSCI (McMaster) 2C03 Data Structures, 2ME3 Software Development (OOP), 3SH3 Operat-

ing System, 3DB3 Database, 3AC3 Algorithms, 4CO3 Computer Networks,

3DM3 Data Mining, 4TB3 Compilers, 4ML3 Machine Learning

COMSCI (UCLA, tentative) 260R Reinforcement Learning, 263 Natural Language Processing, 260C

Deep Learning, 262A learning and Reasoning with Bayesian Networks, 260

Machine Learning Algorithms

Projects

Mortality Predictor for Hospital Patients

(TensorFlow, scikit-learn, Numpy)

Sept 2022 – May 2023 Hamilton, Canada

- Expertly handled MLP and SVM models with MIMIC III patient data.
- Achieved a solid 80% accuracy in predicting patient mortality using patient information.
- Balanced the dataset by replicating scarce labels effectively, before convolution during training.

Image De-Mosaic (PyTorch, Numpy)

Jan 2022 – May 2023 Hamilton, Canada

Trained deep learning models to fix blurry clothing images.

- Tested and analyzed different neural network setups, achieving impressive results.
- Boosted image restoration accuracy by adding a max pooling layer before convolution during training.

Simulate Unix Shell

Jan 2021 – May 2022 Hamilton. Canada

(C)

- Developed a robust C program for a shell interface
- Improved user command execution by separating processes for efficiency.
- Introduced a valuable history feature
- Enabled users to conveniently access and execute previous commands

- Empowered users to run processes concurrently
- Optimized task management and productivity within the shell

2048(Java)

Jan 2020 – May 2021

Hamilton, Canada

- Engineered a user-friendly GUI with customizable board sizes.
- Authored a detailed software specification for project clarity.
- Implemented JUnit testing for robust functionality.
- Employed the MVC pattern for organized, scalable code.

Social Media Website Like Twitter

(Django, HTML, CSS, JQuery, Javascript)

Jan 2019 – May 2020 Hamilton, Canada

- Developed the backend for a Twitter-like social platform using Django.
- Engineered user authentication, profiles, and friend lists for a streamlined user experience.
- Catalyzed user engagement through dynamic post submission and likes functionality.
- Enhanced user experience by creating a robust and user-friendly backend system.

Teaching Experience

McMaster University

Teaching Assistant

Jan 2022 – May 2023 Hamilton, Canada

- Supported four courses under three different professors: Algorithm Design, Discrete Math II, Databases, and Introduction to Computational Thinking.
- Responsibilities included leading tutorials, grading assignments, assisting students, managing exams, and contributing to course structure discussions.