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Yuchen Wang

Passionate software engineer and researcher, striving to solve challenging real-world problems.

LINKS

Email: yuchenw@stanford.edu
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Github:// yuchenWYC
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EDUCATION

Stanford University
Sep 2021 - June 2023
Master of Science in Computer Science

University of Toronto
Sep 2017 - April 2021
Honours Bachelor of Science
Computer Science specialist, Statistics major & Mathematics minor
cGPA: 3.98/4.00, Course Average: A+

AWARDS

(Jan 21) **Konrad Group Women in Technology Scholarship** $2000
Awarded to a student who demonstrates innovation.
(Jan 21) **The Dorothy Walters Scholarship** $2000
(May 20) **UofToronto Excellence Award** $6,000
Awarded to about three students each year.
(Dec 19) **The Dorothy Walters Scholarship** $600
(All years) **Dean's List Scholar**

TEACHING

Stanford | Teaching Assistant
Fall 2021 Spring 2022
CS 221: Artificial Intelligence
Winter 2022
CS 161: Design and Analysis of Algorithms

UofToronto | Teaching Assistant
Jan 2021 - April 2021 | Supervisor: Karen Reid
Course: *Software Tools and Systems Programming*

SKILLS

Specialized
Python • C • Unix/Linux • LaTeX • Git
JavaScript • React • HTML & CSS

Familiar
R • C++ • MatLab • MySQL • Android

Machine Learning Libraries
NumPy • PyTorch • Pandas • Autograd
Matplotlib • ggplot2 • SciPy • Scikit-learn
OpenCV2

WORK EXPERIENCE

Microsoft | Applied Scientist Intern
June 2022 - September 2022 (Expected) | Mountain View, CA
- Developed deep learning pipelines to generate negative training examples for large language retrieval models.
- Designed new evaluation metrics for the results.
- Technologies: Python, PyTorch, Pandas, SQL

Ernst & Young | Technical Consultant Intern (Software)
June 2021 - August 2021 | Shanghai, China
- Developed a software pipeline to help an aviation authority automate extracting parameter values from graphic interfaces, which takes real-time video stream as input and outputs formatted data.
- Utilized AI technologies for optical character recognition
- Communicated closely with clients, wrote detailed documentations and proposal for the project workflow.
- Technologies: Python, OpenCV2, Pandas, Docker

Vector Institute | Machine Learning Intern
April 2020 - Jan 2021 | Supervisor: Roger Grosse
- Designed and implemented hypernetwork algorithms to auto-tune hyperparameters of artificial neural networks during a single run.
- Wrote extensive unittests.
- Reading the literature and proving the related mathematical theories.
- Technologies: Python, NumPy, PyTorch, Autograd, Slurm

University Health Network | Machine Learning Intern
May 2019 - Dec 2019 | Supervisor: Bo Wang
- Worked with clinicians to design a data processing pipeline for electronic health records time-series.
- Engineered modular code for sequential artificial neural networks and tree-based machine learning models.
- The final models accurately predicts one-year and two-year outlook cause of death for post-organ-transplant patients.
- Technologies: R, Pandas, Python, NumPy, PyTorch, Scikit-learn

PROJECTS

Project X Research Competition | Sep 2020 - Nov 2020
- Led the UofT team to develop a new neural ordinary differential equation architecture, which learns the dynamics of time series with multiple predictors and beats the baseline models in performance.
- Applied the model on semi-synthetic plant disease datasets and achieved remarkable results in both extrapolation and interpolation.
- Awarded a $20,000 prize as a winner for the competition.
[ICML 2021 workshop page]

Mars Game Platform | Jan 2019 - March 2019
An open-source game platform containing three well-designed games and user identities. Implemented games Sliding Tiles and Sudoku in Java. Designed and implemented the user interface and interaction. Created comprehensive unittests and detailed documentations.