LEON YAO

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EDUCATION

University Of Waterloo *Sept 2021 - Apr 2023*
Master of Mathematics - Computational Mathematics

Relevant Courses: Computational Vision, Numerical Methods, Computational PDES

University Of Toronto *Sept 2017 - Apr 2021*
Bachelor of Science - Computer Science, Mathematics - CPGA: 3.63/4.0

Relevant Courses: Software Design, Systems Programming, Operating Systems

SKILLS

Data Science: **Pytorch, NumPy, JAX, Pandas, scikit-learn**
Languages: **Python, C++, JavaScript, HTML, CSS, C#, Java, SQL**
Tools: **Node.js, AWS, bash, Git, Docker, Linux**

EXPERIENCE

Software Developer · Python · JavaScript· Java · Kotlin · SQL · Git *Mar 2023 - Nov 2023*
Encircle

- Worked in an agile team with weekly sprints to deliver deployables created from Figma Designs.
- Contributed to the architecture of various features requested by hundreds of clients
- Built internal tools to allow for daily report generation for thousands of clients with Python
- Utilized Firebase Crashlytics to actively monitor and troubleshoot production systems, and analyzed crash data using BigQuery and Google Collab.
- Resolved recurring production issues and deployed enhancements on CI/CD pipelines to improve the performance of the existing backend services in Python.

Computer Vision Intern · Python · C++ · Pytorch · JAX · Git *May 2022 - Dec 2022*
Ecopia

- Combined results from current literature in image blending to design algorithm to blend satellite map images taken from different times.
- Trained Neural Radiance models on datasets containing hundreds of images on multiple GPUS in parallel and baked models into high dimensional representations to allow for faster rendering.
- Extended Visualization software to allow for multiple Neural Radiance Field models to be rendered simultaneously.

PROJECTS

ViewShift · Unity · C# · Git neonleon123.itch.io/viewshift

- Coordinated a team of artists and musicians from various colleges in Toronto to create visual and audio assets, through constructive discourse and iterative design
- Devised game mechanics and implemented assets with C# and developed a web version using WebGL

Fog of War Chess · Javascript · Node.js · Websockets · Git

- Utilized websockets and Node.js to implement real time online play between browser clients on a Heroku server

AWARDS

Daisy Intelligence Hackathon - First Place - January 2019
- Implemented gradient descent using Python's Numpy library to optimize the behavior of a simulated racecar
Dean's List Scholar 2018 - 2021
- Awarded every year for having a GPA greater than 3.5
Undergraduate Student Research Award - NSERC Canada - Summer 2020
- Awarded $8000 to research Knot Theory under the supervision of Professor Liam Watson
Drew Thompson Scholarship - Trinity College - September 2019