

Shanyue Zhou

CONTACT

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ABOUT

Recent computer science graduate with knowledge of software design, development, and testing. Seeking to utilize broad educational background with excellent analytical, technical, and programming skills to thrive as an entry-level software developer.

EDUCATION

McGill University

10/2022

Bachelor of Science

Honors Computer Science

GPA: 3.92/4.00

Distinction & First-Class Honors

Related Coursework:

- Honors Algorithm Design
- Applied Machine Learning
- Software Design
- Data Structure and Algorithms

SKILLS

Proficient:

- C, C++, Python, Java, MATLAB, Spring

Familiar:

- C#, JavaScript, SQL, HTML, Qt, AWS, OCaml, Redis, R, Django

Tools & Utilities

- GNU/Linux, Git, Bash, LaTeX, Solidworks, IDEA, Android Studio, Visual Studio

EXPERIENCE

Quantropi Inc. - Python Developer Intern

11/2022 – Present

- Designed a Python-based neural network using PyQt and PyTorch to examine the security of a new post-quantum authentication scheme.
- Worked alongside another developer to implement RESTful APIs in Django that enabled the internal analytics team to increase reporting speed by 24%.
- Conducted code reviews to verify newly developed features and identify opportunities for optimizations.
- Diagnosed issues causing slow speeds in applications, and documented processes to make the database query system more robust.
- Presented the development and lifecycle report to the Chief Scientist and received recognition for the approaches chosen.

Nanjing Southeast University - Software Developer Intern

04/2021 – 08/2021

- Designed an algorithm alongside Ph.D. candidates to estimate the direction of arrival of sub-6G signals using MATLAB and C.
- Used a dynamic programming approach to minimize the estimation cost and constructed a model based on matrix operations.
- Decreased the estimation cost by 10% and the finalized model was implemented with Arduino as a new prototype for future cellphones and base stations.

FIRST Robotics - Programming Mentor

04/2019 – 05/2020

- Gave lectures to high school participants in FIRST Robotics Team #5839 on Java-based robot programming and Android development.
- Developed the autonomous mode with the rest of the team members.
- Won the champion of the FIRST Robotics National Finals and the Innovation award.

PROJECTS

Machine Learning - McGill University

01/2022 – 05/2022

- Built an adaptive gesture recognition based on Wi-Fi signal.
- Implemented the knowledge distillation neural network using Python, Keras, TensorFlow and PyTorch.

Numerical Algorithm Design - McGill University

09/2021 – 01/2022

- Used enumeration approach to solving integer least squares (ILS) problems.
- Increase the algorithm efficiency for the currently used Lenstra-Lenstra-Lovász (LLL) reduction by 15% in ILS problems with MATLAB.

Data Science - McGill University

05/2022 – 08/2022

- Analyze the stock and gold price's relationship with overall economic prosperity using Pandas and NumPy.
- The research paper is accepted by IEEE-INDIN2022 Conference.