FELIX ZHOU

Programmer & Mathemagician

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EXPERIENCE

Software Engineering Intern

Encircle Inc.

📅 April 2018 – August 2018   📍 Kitchener, ON

- Full-Stack web development with Python, Tornado, TypeScript, and React
- Implemented server-side emailing feature from scratch, allowing users to query and send generated reports
- Improved client-side input experience with lazy loading and functional input state management

Teaching Assistant

Kumon North America

📅 September 2016 – June 2017   📍 Burnaby, BC

- Taught students highschool mathematics from basic Arithmetic to introductory Calculus
- Graded and provided feedback to students on the problem solving process

PROJECTS

VM

CS246E: Objected Oriented Programming (Advanced)

📅 November 2018

- Designed and actualized a C++14 clone of the command-line text editor in a team of two
- Used SOLID Design Principles to produce modular and extendable code
- Implemented undos and redos through the Command design pattern
- Incorporated additional design patterns including CRTP, Decorator Pattern, Non-Virtual Interface, PImpl Idiom, and Visitor Pattern

NNLib

📅 April 2018 – September 2018

- Created a light-weight Neural Network library using numpy
- Implemented back-substitution and gradient descent using the Chain Rule
- Made use of Pytest and Unit Testing to guarantee program correctness of algorithms
- Created an image classifier which recognizes geese with over 85% accuracy

Faustin

YHacks

📅 December 2017

- Leveraged a Deep Neural Network to classify speech in one of five emotional classes with 80% Accuracy through Python
- Presented tonal and semantic analysis of input through google charts API
- Launched the application via AWS on a CentOS server

PROFICIENCIES

C++
C
Python
Java
TypeScript

FRAMEWORKS

TensorFlow   Keras

React   React-Native   Flask

Linux Environment   Bash   Git
Phabricator

LANGUAGES

English
Mandarin
French

EDUCATION

B.S. in Computer Science

University of Waterloo

📅 Sept 2017 – August 2022

4.00 GPA

B.S. in Mathematics

University of Waterloo

📅 Sept 2018 – August 2022

3.97 GPA

COURSE WORK

Data Structures Advanced
Object Oriented Programming Advanced
Compiler Construction

Calculus III Advanced
Linear Algebra II Advanced
Statistics Advanced