FELIX ZHOU

Programmer & Mathemagician

@ felix990302@yahoo.ca   📞 226-898-5226   🔗 zhou-felix.me   in linkedin.com/in/felix990302   ○ github.com/felix990302

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   ●●●●○

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