Ziyue Yang

Computer Science and Statistics, University of Toronto
ziyue.yang@mail.utoronto.ca +1(647)835-0266 https://zyang.dev/

Technical Skills

Programming Python · Java · C++ · SQL · JavaScript · Swift
Technologies Git · AWS · Scrum *r*· Heroku · Android · iOS
Web Tech Django · React · REST · Rails · MongoDB
Data Science R · Pandas · TensorFlow · Scikit-learn · Keras

Experience

Bigtheta
Project Lead (Remote) Toronto, ON (May 2020 - June 2020)
- Led upcoming second-year students with computer science backgrounds to create a Django-based project.
- Presented introductory software development tools and design principles (e.g. OOP programming principles).
- Demonstrated full-stack development process: front-end and back-end development; SQLite data querying.

Cohesion
iOS Developer Intern Guangzhou, Guangdong, China (Summer 2018)
- Contributed to the Swift development of Cohesion's iOS app, an office reservation tool.
- Implemented React Native-based front-end features for mobile.
- Front-end testing using the Jest framework.

Technical Projects

UniMart *https://github.com/yangzi33/unimart*
Web market based on the Django REST framework, providing students a platform to trade items online.
- Implemented models, views, and templates to allow user registration, account profiling, and item listing.
- Styled front-end templates using Bootstrap and React.
- Queried application data with SQLite.

Agenda *https://github.com/yangzi33/agenda*
Android calendar app built using Java. Agenda allows users to create and search calendar events with reminders.
- Integrated Android GUI based on open-source APIs.
- Created features that allow users to add, modify, and create repeating events with specific frequencies.
- Implemented simple SQLite relational databases for data querying, to allow multiple users.

House Prices Prediction with Gradient Boost Classifier *https://kaggle.com/yangzi33/housepriceprediction*
Top 39% machine learning model for competition *House Prices: Advanced Regression Techniques*.
- Built house prices prediction model using the gradient boosting technique with hyperparameters optimized based on randomized searching algorithms.
- Demonstrated machine learning methods including principal component analysis, feature engineering, and Lasso.

3D Navigator *https://github.com/yangzi33/ConsoleFPV*
Dynamic first-person 3D navigator rendered in command line.
- Implemented a ray casting algorithm in C++, mapping from 2D space to 3D.

Treemap *https://github.com/yangzi33/Treemap-Visualizer*
File size visualizer implemented using a recursive treemap algorithm, tested with framework *unittest*.

Education

University of Toronto *2018 - 2022*
Toronto, ON, Canada
- Honours Bachelor of Science, Computer Science and Statistics.
- Coursework: (Enriched) Data Structures and Analysis, (Enriched) Theory of Computation, Software Design, Systems Programming, Computer Organization, Relational Database, Machine Learning Methods, Optimization.

Awards & Extracurricular

Recognized Group Leader *Enriched Data Structures and Analysis, University of Toronto*
LearnAI Associate *Artificial Intelligence Group, University of Toronto*
Orientation Leader *Computer Science Student Union, University of Toronto*
2018 Scholarship Recipent *$2,000, University of Toronto President's Scholarship Program*

Courseworks: courses that I have completed a significant portion of and enjoyed much.
- Cloud Practitioner Essentials: Official AWS training modules. Scheduled to obtain a certification in December.
- Machine Learning, Stanford University: Course that builds a solid foundation of my skills in machine learning.
- Convolutional Neural Networks for Visual Recognition, Stanford University.