

ZIYUE YANG

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<https://yangzi33.github.io>

TECHNICAL SKILLS

Programming Python · Java · C++ · SQL · JavaScript · Swift

Technologies Git · AWS · Scrum · Heroku · Android Studio

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 40% machine learning model for competition [House Prices: Advanced Regression Techniques](#).

- Built prediction model using the gradient boosting technique, based on hyperparameters optimized by a randomized searching algorithm.
- Demonstrated data wrangling skills, such as Principle Component Analysis and null entries cleaning.

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, Machine Learning Methods, Nonlinear Optimization.

EXTRACURRICULAR ACTIVITIES

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

Courseworks: courses that I have completed a significant portion of and enjoyed much.

- Cloud Practitioner Essentials: Amazon's official AWS training Modules.
- [Machine Learning, Stanford University](#): Course that builds a solid foundation of my skills in machine learning.
- [Convolutional Neural Networks for Visual Recognition, Stanford University](#).