

ZIYUE YANG

COMPUTER SCIENCE AND STATISTICS, UNIVERSITY OF TORONTO

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<https://zyang.dev/>

TECHNICAL SKILLS

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

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 Recipient

\$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](#).