

BRUCE TIEU

ucdbrucetieu@gmail.com
https://github.com/brucetieu
https://www.linkedin.com/in/bruce-tieu-4b2725177/

EDUCATION

University of Colorado – Denver Denver, CO
BS Mathematics, BA Economics

Graduated December 2020

Coursework: Object Oriented Programming, Data Structures & Algorithms, Discrete Structures

TECHNICAL SKILLS

Languages: Comfortable: Python, Java | Familiar: HTML, CSS, JavaScript, C++, SQL
Tools / Frameworks: Flask, Git, Selenium, SQLite, Windows, Visual Studio, Eclipse, CLion

PROFESSIONAL EXPERIENCE

Failing Venture Remote

Software Engineering Apprentice

September 2020 – December 2020

- Performed full development life cycle (requirements, design, code, and test) while building personal project
- Learned about CI/CD, documentation, software engineering best practices, and wrote unit tests
- Gained knowledge about the forms of software development such as Agile and Waterfall
- Regularly submitted merge requests to the senior software engineer to collaborate on changes to source code

Xcel Energy Denver, CO

Quantitative Analyst Intern

June 2019 – December 2020

- Prototyped a dashboard UI in Python / Dash to visualize average peak energy loads at any given hour and month
- Developed an anomaly detection and correction Python script on daily data to flag unusual energy usage
- Helped translate business requirements to design a Covid19 dashboard which told key data stories to stakeholders
- Saved up to 4 hours a month by writing a SAS program which partially automated a data validation process

SOFTWARE PROJECTS

Sorting Algorithm Visualization Tool | <https://brucetieu.github.io/Sorting-Visualizer/>

- Created a webpage for visualizing Bubble sort, Insertion sort, Selection sort, Shell sort, Quick sort, Merge sort, and Heap sort
- Used HTML, CSS, and JavaScript to build the tool and learned about async/await keyword and promises

Job Application Bot | <https://btieu.gitlab.io/job-application-bot/>

- Coded a job application bot in Java using selenium to web-scrape and apply for jobs on Indeed and Glassdoor
- Calculated a job match score between a resume and job description using tf-idf vectors and cosine-similarity
- Incorporated a LinkedIn connections bot to automate connection requests with personalized messaging
- Assembled a desktop GUI executable with Java Swing for deployment

IMDB Movies Database

- Constructed a database in C++ using tree data structure to retrieve, modify, add, sort, and search IMDB movies data
- Designed a menu driven interface through the command line to allow the user to interact with the program

Active Recall Study Web App | active-recall.herokuapp.com/

- Built a full stack web application using Python and Flask to help learners track their recalling abilities on subjects
- Utilized JavaScript's Chart.js library to produce instructive graphs and Bootstrap to design a responsive front end
- Hosted the app on Heroku for the public to use

C\$50 Finance Web App | <https://cs50-finance-bruce.herokuapp.com/login>

- Implemented a website with Python and Flask via which users can manage portfolios of stock
- Sent information from client to server side to retrieve data from calls to IEX's API
- Inserted, updated, deleted, and selected records to and from a SQLite database as stocks were bought and sold