Sebastien Fousse

Email | Personal Site | LinkedIn | Github

EDUCATION

New York University   New York, NY
B.S. Computer Science, Minor in Mathematics, Cum Laude, GPA - 3.81   *Jan. 2022 – May 2024*

Northeastern University   Boston, MA
B.S. Computer Science & Cognitive Psychology, Dean's List, Transferred Out, GPA - 3.83   *Sept. 2019 – Dec 2021*

EXPERIENCE

Software Engineer   July 2024 – Present
TD Securities   *New York, NY*
- Built a new feature (React, Typescript, Java, Spring Boot) that allows front office users to manage precious metals products with safeguards and a maker-checker workflow
- Trained a classification model to predict whether a company is likely to be a target of an activist investor campaign
- Built a pipeline with MLFlow to test various combinations of feature selection, imputation, oversampling, model selection, and hyperparam tuning

Software Engineering Intern   June 2023 – August 2023
TD Securities   *New York, NY*
- Developed micro-services using Java Spring Boot and Solace PubSub+ with comprehensive test coverage
- Pushed tickets to production, collaboratively debugged code, and participated in code review
- Participated in daily stand-up with the back-end team and weekly scrum with the product team
- Studied FIX protocol, commodities trading, and event-driven architecture between tasks

Computer Science Tutor   May 2021 – January 2023
Prep Expert   *Remote*
- Assisted students in preparing for the AP Computer Science Principles and AP Computer Science exams
- Covered key topics and compiled study materials for students
- Listened to the students for feedback and built personalized lesson plans

Quality Assurance & Data Intern   April 2021 – June 2021
Tictrac   *Remote*
- Used Postman to send API requests and verified the results on the front-end
- Reported and reviewed bugs/errors on Jira to facilitate a clean workflow
- Analyzed statistics on Tableau pages to determine user engagement for different clients

PROJECTS

X Sudoku Solver | *Python*   April 2024
- Modeled an X Sudoku puzzle as a constraint satisfaction problem solved with a backtracking algorithm
- Implemented minimum remaining value and degree heuristics to speed up solve time
- Will be used as the foundation for a Killer Sudoku solver API I am currently working on

SubletSwap | *Javascript, Python, PostgreSQL, NextJS*   September 2023 - December 2023
- Developed a web-app to allow students to list and search for sublets with filters for date and location
- Created an API accessible back-end that provides the site with account creation and login functionality
- Wrote a comprehensive project proposal, project management plan, and system requirements specification
- Followed agile development methodologies combined with kanban boards and bi-weekly stand-ups

Hiking With Dad | *Javascript, React, Weather API, Netlify*   February 2021
- Developed a web-app in 36 hours as an entry for Hack Beanpot 2021 and won the runner-up prize
- Pulled data from a Weather API to determine an ideal packing list for a hike
- Built a chatbot with branching conversation paths and deployed the code on Netlify

TECHNICAL SKILLS

Languages: Python, Java, SQL, MongoDB, JavaScript, Typescript, HTML/CSS
Frameworks: React, NextJS, Django, Flask, JUnit, Spring Boot
Developer Tools: Git, VS Code, IntelliJ, Jupyter Notebook, Google Colab, Postman API, Solace PubSub+
Libraries: pandas, NumPy, Matplotlib, scikit-learn