Dylan Au

Linkedin | dylanau99@gmail.com | github | portfolio

Education

Drexel University   Philadelphia, PA
Bachelor of Science in Chemical Engineering   Sep. 2018 - Jun 2021
- Cumulative GPA - 3.75
- Awarded the A.J. Drexel Scholarship and Dean's List Award for my academic years

Technical Skills

Languages: C++, JavaScript, Python, Bash, SQL, HTML/CSS
Developer Tools: Git, Maven, Jenkins, Docker, Jira, Linux, Vim
Frameworks & Libraries: gMock, React, pyTest, NumPy, Matplotlib

Experience

ASRC Federal   Jan. 2022 – Present
Associate Software Engineer   Moorestown, NJ
- Designed and developed a deactivation alert for a special object expiring, providing operator awareness
- Upgraded software architecture to 64-bit compatibility by redefining message handlers types to size_t and introducing a 64-bit profile to be activated in Maven's pom file
- Supported multiple projects with software maintenance refactoring and modernizing existing C++ applications
- Improved the department's build status webpage by fetching and displaying build times from Jenkins AP

Drexel University   Jan. 2020 - June 2021
Research Assistant   Philadelphia, PA
- Implemented a stock-driven dynamic material flow assessment to predict future waste production from solar panels using NumPy for multi-dimensional array operations and MatplotLib for 2D graphs
- Utilized pytest testing framework to ensure the model's equations are met as the model is developed
- Wrote a supporting information document explaining the model and how to run the model in Juypter Notebook for non-technical users

Projects

BDO Tracker | *Django, React, MySQL, Docker*
- Built a website using Django and React to help users optimize their daily income by tracking the most profitable items for various in-game activitiesd
- Automated deployment using Netlify's CI/CD infrastructure to efficiently build production with the latest changes

Binary Distillation Solver | *React, Javascript*
- Built an interactive website that solves for the number of stages required for a binary distillation column
- Utilized plotly graphing library to plot the McCabe-Thiele graphical method that changes based on user input

Interactive Calculator | *Java*
- Designed and implemented an interactive calculator with a GUI using Java AWT package
- Utilized a client-server model, visitor pattern, state pattern, and model-view-controller architecture to optimize performance, manageability, and quality of the code

FlappyBlock | *MATLAB*
- A MATLAB side-scrolling game with keyboard input, scoreboard, and collision detection inspired by FlappyBird
- Organized and lead team meetings, finishing the project ahead of the 10 week schedule by two weeks