

DAX PATEL

University Park, PA

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Education

Pennsylvania State University

Bachelor of Science in Computer Science; GPA 3.50

Aug 2021 – Dec 2024

University Park, PA

Relevant Coursework

- Data Structures
- Algorithms
- Systems Programming
- Web Development
- Blockchain Development
- Java App Development
- Computer Design
- Statistics

Experience

Aqua Safe AI

Student Developer

Aug 2022 – Dec 2022

University Park, PA

- Developed web application using Flask to help communities accurately predict droughts and water shortages with the help of machine learning models
- Incorporated scripts using Python and Bash to organize data and clean cache logs to save space and improve performance of the application
- Utilized Agile programming methodologies to efficiently complete tasks, coding sprints, and deployment of application

Teaching Assistant

Java Instructor

Jan 2023 – Present

University Park, PA

- Teaching 20 students object-oriented programming, graphical user interface development, and full-stack application development using Java Derby for the back-end and Java Swing for the front-end
- Hosting office hours to clarify any conceptual questions and assist students with projects and debugging code
- Grading student projects by writing test scripts to evaluate runtime to help pinpoint algorithmic inefficiencies so students can improve their code

Projects

JP Morgan Software Engineering Virtual Experience Program on Forage | *Python, React, JavaScript* **Dec 2022**

- Used perspective data visualization software and Python to monitor stock price trends and create trading strategies
- Worked with JP Morgan engineers to learn skills used in software development at their company like Agile, Git, React, and Python

Course Scheduler | *Java, SQL*

Nov 2022

- Created a desktop application using Java and SQL to help students schedule courses and keep track of their activities
- Processed various user inputs in the back-end of the app to accurately develop schedules
- Integrated server scripts to prevent SQL Injection attacks which resulted in a 10% increase in application efficiency

Clip Clip | *Python, Flask, CSS, SQL*

Aug 2022

- Developed a fullstack application that simulates the common functions of using a computer like processing input, displaying media, and storing information
- Managed server-side commands using remote server and Python to automatically run user-scheduled tasks like email and computer maintenance
- Implemented object-oriented programming practices such as inheritance to create different account types and databases

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SQL

Developer Tools: VS Code, Eclipse, PyCharm, CLion

Technologies/Frameworks: Linux, GitHub, React, NodeJS

Activities

Student Financial Advisor

Part-time

Jan 2023 – Present

University Park, PA

- Advised students on making financial decisions such as loans, credit, investments, and debt
- Worked with a group of 3 advisors to teach finance topics to different student organizations
- Structured and implemented new technologies like investment brokerage and robo-investing which lead to a 15% increase in students' finance knowledge