Vishal Ambavaram

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Education

University of California, Berkeley

BA in Data Science Aug 2017 - Exp. May 2021

Coursework Data Structures and Algorithms, Discrete Mathematics and Probability Theory, Computer Architecture, Principles of Data Science, Advanced Algorithms, Artificial Intelligence, Database Systems, Probability for Data Science (IP)

Experience

Zymergen • Software Engineering Intern (Data Platforms) May 2020 - Aug 2020

- Set up data validation infrastructure (CLI) using Great Expectations, AWS S3 and Docker in Python.
- Built an Airflow task operator that executes CLI commands via a Docker image. Also wrote Slack and Email templates using Jinja for Airflow notification tasks.
- Created a workflow validating key mySQL tables and integrated a validation step into an existing ETL data pipeline in Airflow (validated against custom tailored sets of encoded rules).

Lattice Automation • Software Engineering Intern June 2019 - Aug 2019

- Built synthetic bio design/automation microservices using AWS Lambda, Serverless framework (Python).
- Integrated them into Lattice's tools: Loom, a software suite for synthetic biologists, and synbio library, an assembly automation tool.
- Developed a standalone front-end interface for the Gibson Assembly microservice using React.

Mofrad Lab • Undergraduate Research Assistant Jan 2019 - May 2019

- Integrated pre-processing tools, such as Trimmomatic, BWA, and SAMtools, into a computational data analysis pipeline to assemble, annotate and analyze metagenomics data using Python.

Nifty • Full-Stack Developer Intern Jan 2019 - May 2019

- Created an MVP of a web platform with React. Populated demo store databases using web-scraped data and connected them to the platform using Cloud Firestore. Configured user authentication using Firebase.

Computer Science Mentors • Mentor (Data Structures) Aug 2018 - May 2019

- Taught concepts such as Java programming, data structures, run-time analysis, sorting and shortest path algorithms from CS61B - Data Structures and Algorithms to groups of students weekly.
- Created a presentation for and led a review session before the final exam.

Projects

Reddit Reccomends

- Built a product-recommendation service leveraging Reddit crowd opinions using Python and Flask.
- Used scikit-learn to train and test a model that picks products using sentiment analysis.

BearMaps

- Wrote the back-end of a Google-Maps like application that services Berkeley using Java.
- Gained experience in parsing real-world data, utilizing an A* search algorithm for navigational instructions.

Skills/Interests

Languages Python, Java, C, MySQL, Javascript, HTML/CSS
Tools/Technologies React, AWS, Airflow, Docker, Flask, Firebase, Git