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Sicheng Jia

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Education

University of California, Los Angeles GPA: 4.0
M.S. in Computer Science Oct. 2020 - June 2022

University of California, Los Angeles GPA: 3.62
B.S. in Computer Science Sept. 2016 - June 2020

Experience

University of California, Los Angeles | Teaching Assistant Los Angeles, CA
Operating Systems | Logic Design of Digital Systems | Intro to Computer Science Oct. 2020 - Apr. 2022

- Taught students in discussion sections/office hours and created/graded assignments, labs, and exams.

North Atlantic Industries | Software Engineering Intern Bohemia, NY
Python, SQL, Numpy, Pandas, Plotly, Django, BERT, Docker, Shell, Jira, HTML, Javascript June 2021 - Sept. 2021

- Created a natural language search engine using BERT and a database backend, allowing employees to search for issues, help pages, and manuals by inputting natural language queries.
- Wrote a data extraction and visualization tool for the company's module board test data SQL database, allowing managers to easily observe performance trends over time.
- Collaborated with various teams to develop software for comparing/analyzing development/production firmware files, leading to more consistent file syncing and usage.
- Maintained and updated web-based applications on the company's internal network.

Skills

Languages: Python, C/C++, SQL, HTML/Javascript

Frameworks: Numpy, Pandas, Scikit-learn, PyTorch, Tensorflow, Matplotlib, Plotly, Django, Git, Bash Scripting

Interests: Software Development, Machine Learning, Deep Learning, Natural Language Processing, Data Processing, Data Visualization, Bioinformatics, Cooking, Lion Dance

Projects

Ancestry Inference in Low Dimensional Space Using Autoencoders [*PyTorch, Scikit-learn, Numpy, Pandas*]

- Applied dimensionality reduction techniques to map genome data into lower dimensions for ancestry prediction.
- Implemented novel autoencoders using convolutional and recurrent neural networks that retain the sequential information within genomic data, resulting in a 4-9% increase in accuracy.

Evaluating Machine Learning Approaches for Super-Resolution MRI [*Tensorflow, Numpy, Pandas, Scikit-image*]

- Experimented with traditional and deep learning interpolation models for image super-resolution.
- Applied data augmentation techniques on 8,500 brain MRI images to boost training data samples.

Wander.io [*Python, Django, Scikit-learn, HTML, Javascript*]

- Leveraged machine learning and Django to create an itinerary generation website based on user preferences.
- Utilized the Google Places API to filter attractions and applied K-Means to produce an optimal travel itinerary.
- Mapped out optimal routes to attractions in Google Maps and displayed the schedule in an exportable calendar.