Matthew Kang

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EDUCATION

University of California San Diego | La Jolla, CA CS Machine Learning, minor in Data Science

2017 - 2021

- Eleanor Roosevelt Honors Program, Provost Honors, Design Club, Triton Barbell, Data Science Student Society
- Relevant coursework: Data Structures & Algorithms; Machine Learning Algorithms; Data Modeling & Analysis

EXPERIENCE

Coding Instructor 2021 - Present

Hackingtons | Pleasant Hill, CA

- Teach HTML, CSS, and JavaScript through project-based learning. Teach basic DOM manipulation and how to interact with web APIs using tools like Ajax, jQuery, and vanilla JS. Handle classes with 30+ students.
- Guide students through building web applications with CRUD capabilities using Django & Flask in Python.

Instructional Assistant 2019 - 2020

UC San Diego | La Jolla, CA

- Instructional assistant for COGS 10 Cognitive Consequences of Technology, taught by distinguished professor James Hollan. Helped proctor and grade exams for a class of 200+ students.
- Held weekly tutoring sessions to discuss lecture topics and help students prepare for exams.

PROJECTS

BranchBase - Fullstack Django Application

- Developed a web application with Django, using AWS S3 for storage, AWS IAM for setting user permissions, and PostgreSQL for storing user records. The application itself is hosted on Heroku.
- Programmed custom made class-based views, URL routes, HTML templates, and data models.

Big Data Analysis of Chicago Taxicab Driver Data

- Used Python to analyze a dataset of 30,000,000+ points. Used Dask to conduct computations in parallel.
- Computed taxi trip duration as the greatest factor affecting taxi tip by using correlation coefficients.

Machine Learning Algorithms Performance Testing

- Calculated performance analytics of K-NN, SVM, and Logistic Regression on datasets of 10,000+ rows.
- Optimized configuration for K-fold cross validation using hyperparameter tuning.

TECHNICAL SKILLS

- Data: Python, Pandas, Matplotlib, NumPy, Scikit-Learn, SQL, PostgreSQL, SQLite
- Web Dev: HTML, CSS, JavaScript, Django, Flask, Bootstrap, AWS S3
- Misc: Jupyter, GitHub, Visual Studio Code, Figma, Adobe Lightroom, Photoshop, Excel

INTERESTS & MEDIA

- Weightlifting, Golden State Warriors, exploring bay area restaurants, farmers markets, festivals, and parades.
- Intermediate fluency in French and Korean.
- GitHub: https://github.com/matthewjkang
- Personal website: https://mattkang.com