# Esteban Charry

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Data Science graduate, specializing in elegant software solutions and machine learning, eager to bring fresh perspectives to industry challenges.

#### **EDUCATION**

## University of California, Berkeley

Berkeley, CA, USA

Bachelor of Arts attained in Data Science

12/2023

• Programming Foundations, Data Structures and Algorithms, Discrete Math & Probability, Information Systems Design, Statistics, Probability & Random Processes, Principles and Techniques of Data Science

## WORK EXPERIENCE

Instructor

2925 McMillan Ave, San Luis Obispo, CA

Grade Potential Tutoring

8/2024 - Present

Supervisor: Mr. Ryan McCain (714-558-8867, may contact)

Hours per week: 5

- Independently managed all aspects of instruction and tailored lessons to students' learning styles.
- Delivered one-on-one instruction, ensuring flexibility in teaching methods to meet academic goals and student preference.
- Implemented curated plans to enhance core skills, resulting in measurable academic improvement.

## SKILLS

- Programming Experience: Python, Java (MTA Certified), HTML/CSS/Javascript/TypeScript, R
- Tools: Git, Linux (WSL), Machine Learning, Docker, AWS, MongoDB, Firebase, Node.js, React, REST APIs, PyTorch, Pandas, NumPy, .NET, JUnit, dplyr
- Hardware: Oscilloscope, Digital Multimeter, A/D and D/A Converters, Operational Amplifiers, DAQ, High/Low/Band pass Filters
- Languages: English (fluent), Spanish (fluent)

## Projects

## Gameboxd (React, Node.js, Express, MongoDB)

6/2024

• Developed a full-stack web application with user authentication, search functionality, and modern, interactive UI/UX. Integrated IGDB API for real-time game data retrieval.

## Machine Learning Models (Python)

10/2023

• Implemented the perceptron algorithm, neural network, and recurrent neural network models to approximate sinusoidal functions, recognize handwritten digits, and classify natural languages. CNNs for CIFAR-10 (> 82% validation accuracy), MLP for fashion MNIST (> 82%), RNN for language classification (> 81%).

### AI Pac-Man (Python)

1/2023

• Implemented AI techniques, including state-space search, probabilistic inference, and reinforcement learning (DFS, BFS, A\*, minimax, and Bayesian inference).

## 2D Tile World Engine (Java)

4/2021

• Built an engine for generating random worlds, incorporating A\* search for pathfinding and a structured development and testing cycle.

Gitlet (Java) 3/202

• Developed a command-line version control system for archiving, restoring, and managing file histories and commits.

#### Additional Information

Microsoft Technology Associate, Solar Cup 2020 Eco-Boating Competition, Great Minds in STEM 2020 Scholar, 2020 Chevron Scholarship