ESTEBAN CHARRY

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EDUCATION

University of California, Berkeley **Fall 2020 - Fall 2023**
Bachelor of Arts in Data Science

RELEVANT COURSEWORK

Structure and Interpretation of Computer Programs, Data Structures, Efficient Algorithms and Intractable Problems, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems, Multivariable Calculus, Statistics, Probability and Random Processes

WORK EXPERIENCE

Instructor — ImmersivEducation **June 2019**

- Led a session of 40 students through the fundamentals of game development and programming.
- Taught basic design principles to algorithms in creating efficient and dynamic gameplay elements.
- Implemented designs through C# in Unity engine.
- Drafted course plans and collaborated with a team of instructors to designate topic areas.

PROJECTS

Gitlet – Java **March 2021**
Git-like command-line version control system for archiving directories, restoring files or commits, viewing histories, sequencing commits, and merging branches.

2D Tile World Engine – Java **April 2021**
Engine for generating and exploring random worlds using A* search for path connections and a product development cycle with testing.

Voice Controlled Car – Arduino **March 2022**
A voice-activated car using a Texas Instruments microcontroller and microphone to record and filter commands. The car identifies commands using singular value decomposition and principal component analysis.

Pocket Planets – Python **October 2022**
Particle System simulating evolving agents in diverse ecosystems, with terrains generated using Perlin noise and agent behavior driven by probabilistic algorithms.

AI Pac-Man – Python **January 2023**
Pac-Man project using AI techniques like informed state-space search, probabilistic inference, and reinforcement learning, including DFS, BFS, A*, propositional logic, minimax and expectimax search, and Bayesian inference algorithms, Bellman updates.

SKILLS

Languages: Python, Java, C#, SQL, HTML & CSS
Tools: Git, Machine Learning, Docker, Kubernetes, AWS
Frameworks and Libraries: PyTorch, Pandas, NumPy, .NET, SwiftUI, UIKit, JUnit

CERTIFICATIONS AND AWARDS

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