Michael Marsella

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Education

University of California, San Diego   B.S. Mathematics - Computer Science
September 2016 – June 2020   Minor in Entrepreneurship and Innovation

Skills

Programming: Python, C#, C, C++, Java, SQL, Kusto, HTML, CSS, ARM Assembly, MATLAB

Technologies: Apache Spark, Pandas, Scikit-learn, Keras, Tensorflow, Databricks, .NET, MapReduce, Microsoft Azure, Google Firebase, Unity 2D

Other: Agile Methodologies, Azure DevOps, Software Development Life Cycle (SDLC), Project Management, French (Conversational), Video Editing

Relevant Experience

Microsoft - Machine Learning Architect
August 2020 – Present
- Spearheaded development of distributed microservices in .NET to save $1 million in costs.
- Architected and engineered automated machine learning pipelines with Python, Pandas, Apache Spark, and Microsoft Azure.
- Designed and scaled distributed neural network training system to over 3000 internal services.
- Decreased machine learning pipeline processing time by over 80%.
- Managed daily analysis of 50 million data points across 50,000 users.
- Drove project parity across 4 distinct cloud environments.

Northrop Grumman - Software Engineer Intern
June 2019 – August 2019
- Managed a team of 6 software engineering interns.
- Presented managerial accomplishments and goals to chief engineers and upper-level management.
- Improved software documentation to increase future team efficiency.
- Migrated software application to web tool utilizing C++ and JavaScript.
- Collaboratively tested software in simulation environment.

FBI: Cyber Division - Software Developer Intern
June 2018 – May 2019
- Developed internal tool in Java to improve efficiency of intelligence analysts.
- Worked collaboratively alongside junior and senior level software engineers.
- Acclimated to software development process within secure environments.

Recent Projects

Stock Analysis Platform - Software Engineer   *March 2022 – Present*
- Building stock analysis platform with React JS frontend and Flask Python backend.
- Leveraged machine learning anomaly detection methods to analyze stock price outliers.

2D Unity Game - Game Developer   *September 2021 – Present*
- Developed advanced non-player character behavior systems in Unity utilizing C#.
- Implemented cellular automata mechanism for procedural map generation.