

MATEO TOPETE

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

BS Computer Science | University of California Irvine

Relevant courses include Data Structures, Principles of System Design, Analysis of Algorithms, Optimization, Projects in AI, and Data Mining

PROJECTS

Reinforcement Learning AI

- Written in python as a course-long project in college with a team of 3 people
- Developed with MALMO for minecraft, RLlib, and GYM APIs
- Utilized RLlib Soft Actor Critic algorithm with a convolutional layer augmented observation space
- Successfully trained the agent to gather/manage resources and avoid/remove obstacles

Web Scraper + Search Engine

- Course-long project completed from scratch in python
- Web crawler was multi-threaded and followed 'polite' web crawling procedures
- Index build from the crawler contained over 50,000 webpages and was stored as a inverted index
- Search engine returned ranked, relevant results in under 300 ms

Medical Chatbot

- Utilized a Meta Llama 2 model from Hugging face as well as LangChain and Pinecone APIs
 - Medical textbook chunked and saved as vectors on Pinecone
 - LangChain RetrievalQA used to retrieve relevant chunks from Pinecone and pass to LLM
 - Deployed to an AWS EC2 instance temporarily using Flask API
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CERTIFICATIONS

AWS Developer - Associate

A proctored exam offered by Amazon Web Services that tests for proficiency in core AWS services. Includes but is not limited to; AWS: IAM, DynamoDB, Lambda, VPC, S3, EC2, and Elastic Beanstalk

Machine Learning Engineering for Production (MLOps)

Covered beginner and intermediate MLOps concepts as well as offering guided labs and projects working with real production environments through Google Qwiklabs

DeepLearning.AI TensorFlow Developer

Focused on different neural networks and applications for TensorFlow Keras as well as data gathering/cleaning/augmenting techniques

SKILLS

Python (7y)
TensorFlow / Keras (2y)

Pandas (1y)
Jupyter Notebook (2y)

MySQL (2y)
Git (4y)
