# MATEO TOPETE

Sacramento, CA
916-690-0434
mateottopete@gmail.com

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

## 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 GCP

**DeepLearning.AI TensorFlow Developer**

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

## SKILLS

- Python
- C++
- MySQL
- AWS/GCP
- Pandas
- Jupyter Notebook
- TensorFlow / Keras
- SciKit-Learn
- Git
- Docker
- VS Code