Jordan Moradian

http://www.jmoradian.com/

Education

Tufts University, Medford, MA *2015-2019*

- B.S. in Applied Mathematics and Computer Science
- Relevant coursework: Mathematical Neuroscience, Nonlinear Dynamics and Chaos, Mathematical Modeling, Complex Variables, Numerical Linear Algebra, Probability, Statistics, Real Analysis I&II, Machine Structure and Assembly Language Programming, Programming Languages, Algorithms
- Extracurricular Activities: Varsity Crew Rowing Team, Member of Theta Delta Chi Fraternity

Work Experience

Amazon Web Services, AI | Rekognition, Seattle, WA *8/2019 - Present*

Software Development Engineer

- Developed and launched the Rekognition FaceV5 service API which dramatically improved latency by a factor of 2x and cost by a factor of 3x as compared with the previous version
- Led the design and prototyping effort for a novel architecture of the Rekognition Face Search API which would reduce monthly backend costs by an estimated factor of 27x
- Played a key role in new region launches for the Rekognition Image Inference services
- Regularly work with members of the Rekognition Science team to evaluate updated models and integrate them into the Rekognition APIs

Linden Lab, San Francisco, CA *5/2018 – 8/2018*

Data Science Intern

- Developed a machine learning based fraud detector for Second Life transactions
    - Performed PCA/t-SNE on feature set to reduce dimensionality, selected classifiers for ensemble method based on performance, hyper parameterized the model and optimized for F1-Score of 98%
- Developed various classifier and regression models for customer churn as well as in-world retention and conversion rates
- Developed a model to categorize users based on in-world behavior via PCA, t-SNE, and k-means clustering
- Conducted hypothesis testing of retention rates associated with populations from different in-world experiences

Tufts Human Computer Interaction Lab, Medford, MA *4/2017 - 8/2017*

Software Development and Research Intern

- Implemented a deep deterministic policy gradient reinforcement learning algorithm in order to program a simulated Valkyrie robot to perform a number of tasks in unknown environments for the NASA Space Robotics Challenge
- Developed a policy gradient inverse reinforcement learning algorithm that inferred reward and policy parameters from as few as five expert agent trajectories in a continuous action and state space

Walleye Trading LLC, Boston, MA *5/2016 - 8/2016*

Software Development and Data Science Intern

- Conducted statistical research on potential market predictors across multiple years of daily data intake
- Reformatted big data for purposes of visualization and statistical testing through R
- Developed interactive web-based programs using R-Shiny in order to present data visualization models

MDBiosciences Inc., St. Paul, MN *5/2015 - 8/2015*

Statistician

- Conducted statistical analysis of pre-clinical pharmaceutical trial data

Projects

EEG Brain State Predictor *5/2020 - Present*

- Using 16 channel OpenBCI EEG headset to collect data during different activities
- Developing models to:
    - Detect and remove physical movement artifacts from data
    - Infer activity (i.e., meditation/neutral, active listening — music, active reading, etc.)
- With the long-term goal of detecting and anticipating various states of communication
- See project details at http://www.jmoradian.com/assets/projects/EEG_Mental_Activity_Detector_Classifier.pdf

Crawl Technologies *3/2020 - Present*

- Developing cloud based mobile application to provide small businesses with dynamic pricing solutions
- Visit www.crawltechnologies.com

LSTM Bitcoin Indicator, *(Independent Study)* *2/2018 – 5/2018*

- Developed a recurrent neural net model to predict bitcoin price fluctuations using twitter sentiment features
- Project Advisor: Professor Liping Liu

RL Market Predictor *7/2017 – 9/2017*

- Developed a reinforcement learning based market predictor in Python using TensorFlow.
- Details at https://github.com/jmoradian/RLMarketPredictor

Skills

Technical: I constantly work with many languages, tech stacks, and platforms as needed - I can pick anything up quickly. Most commonly used (in order of recency):

- Languages: Python, Java, SQL, R, C/C++
- Platforms/Toolkits: AWS (many services across the board), Grpc, Gunicorn, Tensorflow, Scikit-Learn, Keras, Numpy

Languages: English, Spanish, Arabic, Swiss-German