NIKHIL MEHTA

408-712-1003
mehta52@purdue.edu
832 Valencia Drive, Milpitas, CA

Github:
hockeybro12

Linkedin:
nikhillmehta

SUMMARY

I have passion and experience using big data and machine learning / analysis techniques to solve complex problems end to end.

SKILLS

Programming:
Python, Java, Scala, C, Node.js, Swift

Machine Learning:
Sci-Kit Learn, Data Analysis, Feature Engineering, NLP, Vision, Tensorflow, PyTorch, Keras, Deep Learning, Jupyter, Numpy, Pandas, MatPlotLib

Other:
SQL, Cassandra, Linux, AWS, Git, Hadoop

PROJECTS

Machine Learning

Deep MEMM model for Named Entity Recognition implemented in Pytorch that uses Viterbi for inference.

Yelp Dataset Analysis using Custom Implementation of Naïve Bayes, KNN, and Decision Trees

iPhone Apps, Games

Self-Developed apps similar to Instagram, StubHub, and an "Endless Runner" action game. App reached rank #9 in Paid USA Reference Category, Top 900 Overall in Paid USA App Store

EXPERIENCE

Researcher at Purdue — August 2017 - Present

- Working with Professor Dan Goldwasser to research ways to use natural language to optimize ML algorithms. The research paper describing this work is under submission.
- Solving complex problems in the space of Natural Language Understanding using LSTM's, word embeddings, data analysis, Tensorflow, and Numpy.

UnifyID — San Francisco, CA

Machine Learning Engineer Intern — *May - Aug 2017*
Software Engineer Intern — *May - Aug 2016*

UnifyID, *RSA Innovation Sandbox winner and TechCrunch Disrupt Runner Up*, is the first holistic implicit authentication platform utilizing sensor data from everyday devices and machine learning to seamlessly authenticate users.

- **Machine Learning + Data Science:**
  - Implemented a system to identify users based on how they pick up their phone using signal preprocessing and Dynamic Time Warping that is now an authentication factor. Collected data, preprocessed it, and implemented / evaluated various algorithms.
  - Evaluated techniques such as Power Spectral Density analysis, Support Vector Machines, and Clustering to authenticate based on human resonance frequency.
  - Worked to improve the state of the art gait authentication system using Deep Nets.
  - Use Deep Learning techniques to publish research on the capacity of Binarized Neural Networks at the International Conference on Machine Learning (ICML).
- **System Architecture:** contributed to the backend server via REST APIs, RSA Security, and Database Interactions. Work directly with the CEO on product dev. and architecture.
- **TechCrunch Disrupt Beta:** Implemented features on the iOS beta app and Chrome Extension including RSA encryption, data collection, registration flow, and app extension.

EDUCATION

Purdue University — West Lafayette, Indiana

B.S. Computer Science — *Aug 2014 - Jun 2018*

Focus: Machine Intelligence and Security
Relevant Coursework: Graduate Machine Learning for Natural Language Processing, Data Mining and Machine Learning, Operating Systems, Compilers, Analysis of Algorithms, Probability, Statistical Theory, Networks, Artificial Intelligence, Linear Algebra, Foundations of Analysis, Computer Security, Cryptography

ACHIEVEMENTS

Peer Reviewed Publication at ICML 2017 Memorization in Binarized Neural Networks. Evaluated the capacity and generalization ability of Binary Neural Networks. Designed and ran multiple experiments on various architectures, and analyzed the results. Authored the paper and delivered a presentation at the Tiny ML workshop in Sydney, Australia.