https://www.overleaf.com/project/5a3e656bc15e1163006f2eda

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EXPERIENCE

- **JP Morgan Chase** — New York City
  Data Scientist, Risk and Fraud ML - CCB — *Aug. 2018 - Present*
  - Led the bank's efforts in reinventing and enhancing the fraud detection systems as a part of the skunk-works team, and upgraded the infrastructure technology to leverage advanced state-of-the-art machine learning techniques.
  - Built fraud pipelines that handle nearly 10 million transactions every day, to decision, step-up and effectively approve/decline a transaction within 9ms SLA. System expected to handle traffic upto 6x daily load.
  - Built distributed deep learning models on GPU using PyTorch and TensorFlow that leverage on terabytes of transactional data in Hadoop to build better fraud detection models for Check, Digital EMM fraud and Account takeover.
  - Trained feature extractors using representation learning from unstructured data for better risk signals using TigerGraph. Implemented Node2vec, Community detection and signal pairing for account and transactional information.
  - Conceived, designed and implemented a high accuracy Parser framework based on Recurrent neural nets, and an efficient high-precision entity localizer using novel variants of MobileNet , scoring an mAP of 0.8 at 75% IOU.
  - Used broker process pipelines to improve latency of decisioning by 5x. Worked with Kafka streams, Cassandra queues, MongoDB and other orchestration platforms as a migration effort from mainframes.

- **Becton Dickinson** — San Diego
  Machine learning intern, Analytics team — *Jun. 2017 - Sep. 2017*
  - Led an intern team of 4 in building an information retrieval & optimization feature for pricing strategies, and forecasting supply variations in Python and R. Conducted large-scale mining, parsing and analysis of nebulous data over a distributed network with 2 TB of data by developing an ensemble of gradient boosting, time series LSTM and ARIMA models.

EDUCATION

- **University of California San Diego** — San Diego, USA
  M.S. in Electrical and Computer Engineering GPA: 3.72/4 — *Sep. 2016 – Jun. 2018*
  Specialization : Intelligent systems & Machine learning
- **Anna University** — Chennai, India
  B.E. in Electrical and Computer Engineering (Hons.); CGPA: 8.86/10 — *Aug. 2012 – July 2016*

PROGRAMMING SKILLS

- **Languages**: Python3, C++, PySpark, R, SQLServer, Hadoop ecosystem, SAS, Tableau
- **Technologies**: PyTorch, TensorFlow, Keras, NLTK, Gensim, Pandas, NetworkX-Gephi, Scrapy

PROJECTS

- **Published a journal paper**: Srinath et.al, "Example-Based Super-Resolution", Scientific World Journal, Article 8306342. Extracted similarity kernels using matrix valued operators for image super-resolution and image fusion and improved image quality by 2.1 dB and similarity by 22%.
- **Stacked Attention neural nets for Image Q&A**: Captioning was modeled with LSTM for scene classification and a RNN for semantic analysis in TensorFlow, achieving a 59% multi-class Hit5 accuracy. Implemented protobuf configurations for streamlining.
- **Neighbour interaction using activity and ego networks**: Explored dynamic social networks by patterning user pairs and identifying temporal, geographical and ethnographic trends in New Orleans Facebook activity dataset.
- **Social media sentiment analysis with Twitter tokens for Cryptocurrency price prediction**: Screened tweets with Twitter API, TextBlob and performed sentiment analysis to identify trends in Ripple, Ethereum and Bitcoin with tokens. Used distributed models on Spark, increasing productivity by 25%
- **SFArchiver** Built C++ archiver library from scratch that serializes files as binary dumps. Supported compression, fast retrieval, searching, and built wrappers for Python, achieving 45% compression and 0.9 ms extraction time.
- **Weather pattern analysis using PySpark**: Analyzed US climate with data scraped using Beautiful Soup and Scrapy. Wrote Python scripts to perform distributed PCA and Eigen analysis, and visualized results using gmplot. Identified seasonal trends and global warming indicators with 78% signal correlation.