Geethanjali Vasudevan

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EDUCATION

Northwestern University   **Evanston, USA**
Master of Science in Artificial Intelligence| GPA: 3.96|4.0.   **Sept '21 - Dec '22(Expected)**

- **Coursework**: Deep Learning, Data Science Seminar, Statistical Language Modeling, Natural Language Processing, Human computer Interaction

Anna University   **Chennai, India**
Bachelor of Engineering in Computer Science | GPA: 7.97 |10.0   **Aug '15 - Apr '19**

- **Coursework**: Data Science, Mathematics, Computer Science

WORK EXPERIENCE

California Software Company Limited, Chennai | Data scientist   **Sept '19 – Sept '21**
Design and development of AI/ML algorithms for e-commerce and pharmaceutical companies.

SKILLS

Programming Languages - Python, SQL

Skills - Machine learning, Image Processing, Deep Neural Networks, Natural language processing, Graph analytics

Tools - Tensorflow, Pytorch, Numpy, Open-cv, Azure ML, Tableau, AWS, Git & Version Control, Nginx, Flask, Uwsgi, Docker

ACADEMIC PROJECTS

Who shot first? - A closer look on officers who fired their weapons.   Link
Fusion of Latent Dirichlet allocation, graph and relational analytics to understand and predict behaviors of police misconduct in Chicago area. Uncovered deep rooted systematic issues which involved influence of superiors, connected-networks, community bias, etc.

Know your food? - Image based classification and nutrition retrieval   Link
Developed a custom CNN model using residual blocks, learning rate scheduler, batch normalization to build a hybrid image based nutrition assessment system. The model was able to surpass pre-trained resnet models accuracy by 6%

Ask me anything? - Advanced Multi-domain conversational agent   Link
Fine-tuned GPT-2 using various decoding methods like beam-search, top-k, etc. for multi-domain text generation and evaluated using rouge, sacrebleu metrics. Built an interpretable system which produces better quality text.

PROFESSIONAL PROJECTS

Auto Case-Report Analyzer
End-to-end AI system using fine-tuned Bio-bert for Pharmacovigilance domain that effectively understands the medical context and automatically extracts critical information from unstructured adverse events reports. Reduction of literature screening and annotation cost by 60%.

Customer lifetime value prediction
Clusters of ML algorithms were combined to estimate the value of customers over specified period. Rapidly increased sales by 17% and decreased marketing costs.

Product Recommendation System

Ensemble of content collaborative system using auto-encoders, ml and neural networks to recommend product for different ecommerce scenarios such as new customers, new businesses and repeat purchases. Increased average order value by 28%.

INTERNATIONAL PUBLICATIONS

Indian water pollution monitoring & forecasting for anomaly with fail-safe wireless sensor networks using machine learning	Link
Advanced detector for invasive ductal carcinoma using deep learning	Link
Automatic interpretation of pneumonia using deep neural networks	Link
Indian stock market forecasting using deep learning by LSTM neural networks	Link

RESEARCH PAPERS PRESENTED

• Presented ML research paper at International conference on Informatics robotics, construction and communication.

• Awarded Second place in paper presentation held at National Level technical symposium at Anna university, Chennai.

• Presented paper on Analytics software for clinical research at Peri Institute of technology and obtained a place in the top 5.