NAREN MOHAN

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Available for internships from May 2022 to December 2022

EDUCATION

Northeastern University, *Boston, MA*   *Expected May 2023*

Master's in Data Analytics Engineering – 3.85 GPA

Relevant Coursework: Machine Learning, Statistical Methods in Engineering, Data Management for Analytics, Computations and Visualizations

CMR Institute of Technology, *Bangalore, India*   *July 2018*

Bachelor's in Electronics and Communications Engineering

Relevant Coursework: Image Processing, Data Structures using C++, Programming in C, Digital Signal Processing

TECHNICAL SKILLS

Programming – Python, R, IBM SPSS, C++

Database – MySQL, SQLite, MongoDB, DynamoDB

Tools – Jupyter, scikit-learn, TensorFlow, OpenCV, Tableau, AWS (EC2, S3, Lambda Services), GitHub, Adobe CC, Unity

WORK EXPERIENCE

Rehabilitation Games & Extended Reality Laboratory, *Boston, MA*   *Jan 2022 – Present*

Research Assistant

- Analyze finger movement, eye gaze and pupillometry data from a VR game using HTC Vive Pro Eye in Unity, designed to understand the predictive impairment in people with autism, by performing time-series analyses such as Dynamic Time Warping, RQA
- Collaborating with Sinha lab at MIT on Whack-a-mole project to model eye gaze data in neurotypical and people with autism for SFARI - $900,000 research grant

Sony India Software Centre, *Bangalore, India*   *Aug 2018 – Aug 2021*

Senior Software Engineer

- Analyzed software vulnerabilities using a Machine Learning model for their severity and orchestrated the remediation activities of different platforms by designing KPI based dashboards and CISO reports
- Spearheaded the AP Operating Companies' project phase to introduce VM in collaboration with the Sony Singapore team
- Saved 40+ human hours effort every week for the team by automating maintenance tasks on Python using APIs
- Developed the project AutoDub to convert one person's voice to another using CycleGAN algorithm in TensorFlow framework, and presented it in Sony's internal competition called Sony OpenHouse 2020, in collaboration with Sony Pictures' team

Hurestic IoT, *Bangalore, India*   *Jan 2017 – May 2017*

IoT Development Intern

- Integrated AWS MongoDB, EC2 and fingerprint sensor for a door access system by coding 10+ Node.js scripts in Lambda services
- Calibrated and integrated the pollutants' sensors to the frontend using IoT chips and Python scripts for a water pollutant device

PROJECTS

AutoDub using GANs – *Deep learning, TensorFlow, Python, Google Cloud API* – [YouTube]   *Dec 2019 – Apr 2021*

- Developed a deep learning solution to convert and translate speech inputs through CycleGAN algorithm in TensorFlow framework by training models on AWS Deep Learning Instance and GCP APIs for language translation
- Secured "Most Popular Team" award among 300 teams for presenting this project with an interactive Spring Boot based frontend

Yelp Reviews Topic Modeling – *Python, NLP, Spacy, Gensim* – [GitHub]   *February 2022*

- Implemented Sentimental Analysis on Topic Modeling to analyze the difference in topics between positive reviews and negative reviews using TextBlob and LDA
- Evaluated the LDA model using Coherence and Perplexity metrics using Gensim library for hyperparameter tuning of the model

Analysis on Plastic consumption vs GDP of countries – *IBM SPSS, Python*   *Sep 2021 – Dec 2021*

- Performed hypothesis testing to study the effect of GDP of countries on plastic consumption
- Developed a Linear Regression model to generalize the relationship between plastic consumption and GDP using SPSS and Python