Ruthran Chandrasekar

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Links: LinkedIn | Video intro 60sec | Schedule a 30min meeting

Education

Master of Engineering - Duke University **Aug'18 – Dec'20**

Mechanical Engineering - Specializing in Computational Mechanics *GPA 3.66*

Work Experience

Data Scientist – LeanTaaS Inc. **Jan'23 – Mar'23**

Infusion centers team

- Evaluated and revised the 'Compliance Score' metric used to estimate the operational performance of infusion centers.
- Optimized the compliance score toward calculating how closely scheduled appointments matched the template.
- Devised a new evaluation metric called 'Peak Utilization Score' that more accurately represents the effect of operational performance on outcomes such as reduced patient wait times.

Associate Data Scientist – Hospital IQ Inc. (Acquired by LeanTaaS Inc.) **Aug'21 – Jan'23**

Perioperative care team

Surgery Case Length Prediction

- Successfully operationalized the surgical case length prediction module as a part of the new case scheduling workflow, including accurate predictions for multiple procedure cases.
- Successfully validated MVP of 75% range estimate accuracy across 100+ campuses (20+ hospitals); 3 hospital systems started pilot programs in practice.
- Managed to beat our competitors to market with comparable accuracy and better integration into the platform with multiple instances of usage in the workflow; leading to significantly greater value.
- Leveraging the case booking form built around the case length predictor, devised a means to upgrade these predictions by leveraging free text surgeon notes using NLP.

Data Science Intern – Duke University **Jun'20 – Nov'20**

Center for actionable health data science

Predicting Peripheral Artery Disease (PAD) from clinical notes through NLP

- Successfully presented a PAD classifier to 80+ Duke clinicians, data scientists & faculty, built using long text clinical notes.
- Trained Word2Vec & BERT (Transformer) models using the time series data of 6500 patients.
- Built a classifier with an AUC of 0.74 and discovered the loss of context in the model due to each note acting as an independent event without inheriting information from past notes.

Bias detection in media sources

- Modeled 3 Doc2Vec GenSim models using a corpus of left-wing, right-wing & centrist media news articles to analyze the biases present. A noticeable difference in results due to bias was portrayed when catalyst words and phrases were fed as input for cosine similarity and text generation.

Community Experience

Data Analyst Volunteer – Cyber-Seniors Inc. **Apr'21 – Nov'21**

Automated the spreadsheets based system using Zapier & created vizualizations for their data.

Liaison – Center for Multicultural Affairs **Jan'19 – May'19**

Liaised with CMA faculty & Duke data analysts regarding funding disparity for multicultural societies at Duke.

Additional Information

Programming languages: Python, SQL, Matlab

Work authorization: H-1B Visa - Valid till Oct'25, eligible for a 3 year extension.

Hobbies: Monthly conduct a book club; was a part of work (HIQ) book club | Running | Budgeting nerd (YNAB)

Work involvement: Lunch-n-Learns, Journal Club

- Attended the Data Summit conference (Boston 2022) for outreach and delivered a summarized presentation to the company.
- Built a Wordle bot and conducted a workshop.
- Journal clubs were a part of the data science team's culture to each read a research paper on one topic and convene for discourse.