Chinmay Mokashi

Houston, TX

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Education

University of Texas Health Science Center at Houston (UTHealth) — *Houston, TX*
MS in Biomedical Informatics — *Jan 2021 - Current*
- Graduate Researcher
- Teaching Assistant for Machine Learning class
- **Courses:** Medical Imaging and Signal Pattern Recognition, Big Data, Machine Learning, Statistics in Biomedical Informatics

National Institute of Technology, Rourkela — *Rourkela, India*
BTech in Biomedical Engineering — *August 2012 - May 2017*
- Specialized in digital health and embedded systems

Work Experience

iOPEX Technologies — *Bengaluru, India*
Senior Software Engineer - Data Engineering — *May 2019 - December 2020*
- Led a team of 3 in data engineering design, primarily based on Google Cloud Platform.
- Built ETL pipelines to clean, structure and train user emails to create custom email categories.
- Used logistic regression and SVM to categorize emails into 10 non-exclusive labels (best AUC - 0.84)
- Worked on time-sensitive ad-hoc data analysis projects, such as insurance and time series transactions data.

AthenasOwl, Quantiphi Inc. — *Mumbai, India*
Data Engineer — *January 2018 - January 2019*
- Ideated and developed data infrastructure and architecture of the AthenasOwl ML platform
- Built a Gateway API for authorization, authentication and user management of a multi-tenant platform-as-a-service (PaaS) infrastructure.
- Researched, designed and implemented a custom ML platform on a Kubernetes cluster using docker APIs.
- Collaborated with UI/UX vendor to create PaaS platform interfaces.

University Projects

Developing an automated 3D image segmentation AI tool to screen for endometriosis — *Houston, TX*
UTHealth — *August 2022 - December 2022*
- Researched and implemented U-Net (CNN) based nnU-Net pipelines on annotated 3D MRI sequences for semantic image segmentation (**Average Dice score - 0.75**). Collaborated with healthcare professionals to review, annotate/segment and clean MRI data.

Visualization tool to identify misinformation on YouTube regarding vaping — *Houston, TX*
UTHealth — *May 2021 - August 2021*
- Identified **misinformation using supervized and unsupervized (topic modeling)** ML techniques on self-generated and labeled dataset of Youtube video metadata.

Purely client-side web-application to predict the risk of acute stroke in patients using OCTA images — *Houston, TX*
UTHealth — *Jan 2022 - May 2022*
- Built a web-application with image processing and vascular metric calculation capabilities on React.JS.
- Trained a ML classifier on OCTA images and deployed on the user interface (AUC - 0.81).

X-ray image classification to predict cardiomegaly — *Houston, TX*
UTHealth — *Dec 2022*
- Using image processing and transfer learning, constructed **10 different data pipelines** with different approaches and compared them to identify the best approach. Wrote a paper to report the results.

Skills

Data Analysis and Machine Learning	SQL, Matplotlib, Pytorch, scikitlearn, scikit-image, BERT, Tableau
Data Engineering	Google Cloud, MySQL, REST API, MongoDB, PySpark, NLTK
Software Engineering	Python, Node, React, Flask, Ansible, BeautifulSoup
Biomedical Data	DICOM, Epic EHR, HL7, FHIR, RxNORM