

## AASTHA TANDON

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### EDUCATION

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#### California State University East Bay

M.S. in Business Analytics (Machine Learning & Data Science) | **GPA: 3.96/4.0**

**August 2022 – May 2024**

**Relevant Coursework:** Text Mining, Deep Learning, Big Data, Data Mining, DBMS, Data Warehousing & BI

#### University of Delhi, India

M.Sc in Operational Research

**August 2015 – May 2017**

#### University of Delhi, India

B.Sc in Computer Science

**August 2011 – May 2014**

### TECHNICAL SKILLS

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**Languages:** Python, R, SAS, SQL, Java, C++, LaTeX

**Statistical/Learning Algorithms:** Regression, Decision Trees, K Means, Classification Trees, Logistic Regression, Random Forest, XGBoost, KNN, PCA, Neural Network, CNN, RNN, LSTM, Transformer, LLM, GenAI, Diffusion Models

**ML Frameworks/Others:** PyTorch, Tensorflow, Keras, Scikit-learn, Pandas, Numpy, NLTK, Git, Matplotlib, Seaborn, Tableau, PowerBI, Azure, GCP, AWS, MongoDB, OpenCV, MapReduce, Hive, Pig, Hadoop, Spark

### EXPERIENCE

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#### California State University East Bay

Research Assistant (Advisor: Prof. Surendra Sarnikar)

**June 2023 – August 2023**

- Engineered a Python script with BeautifulSoup for web scraping, augmenting process efficiency by 65%
- Utilized OpenAI's LLM GPT-3.5 Turbo language model to structure scraped data by employing prompt engineering
- Performed LDA & BERT with LLM identifying in demand skills, integrating 40% recommended topics to curriculum

#### California State University East Bay

Student Assistant Tutor – ITM 300 & ITM 330

**January 2023 – May 2023**

- Coached 100+ students in Python and Excel, enhancing programming, data analysis & management skills in 6 classes

#### UnitedHealth Group

Associate Data Analyst

**April 2019 – June 2021**

- Constructed ML models to prevent customer churn in UHG healthcare plans, increasing customer retention by 15%.
- Formulated ensemble technique for early detection of recurrent breast cancer, improving accuracy by 20%.
- Designed multi-headed Neural Network to estimate joint occurrence of Type 2 Diabetes and Cardiovascular diseases based on patient's past medical history, resulting in a 19% increase in accuracy.

#### Complete HEOR Solutions (CHEORS)

Senior Data Analyst

**June 2017 – March 2019**

- Analyzed treatment patterns data, revealing opportunities for new drug launches and shaping strategic decision making
- Created data-driven recommendation engines to promote medication resulting in projected sales growth of 10%.
- Published poster "**Costs and Healthcare Resource Utilization for Cervical Conization in Mid-Adult Women in the United States**" in EUROGIN, 2018.

### ACADEMIC PROJECTS

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#### Breast Cancer Detection in Histopathology Images

- Built efficient CNN models with MobileNet and Regularization as backbone to detect cancer in histopathology images.
- Gathered data from Kaggle and proposed solution achieved high accuracy and AUC of 88%.

#### Analyzing Disneyland Visitor Reviews with NLP's LDA Topic Modeling

- Implemented Latent Dirichlet allocation to construct topics contributing to both positive and negative feedback.
- Concluded topics across different locations and extracted actionable insights to improve customer experiences.

#### Wikipedia Toxic Comment Classification

- Developed ML models like Binary Relevance, Chain Classifier, LSTM to predict different types of toxicity in comment.
- Executed TFIDF as feature embedding with Logistic regression and Glove embedding with LSTM.

### AWARDS AND CERTIFICATIONS

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- SAS Global Certification** with score of 92%.
- Received several **Bravos** for Excellent Performance, Innovation, and Cross functional teamwork at UnitedHealth.
- Excellence Award** for teamwork and ownership at CHEORS.