AKHIL UTHAPPA

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EDUCATION

Master of Science, Computer Science and Information Systems/CIS, Boston University

Sep 2022 - Present

- Relevant Coursework: Advanced Machine Learning, Data Science with Python, Data Mining, Big Data & Analytics, IT Strategy and Mgmt, Advanced Data engineering & Mgmt, Business Data Communications & Networks, Innovation Process: Developing New Products & Services, Statistics Bachelor of Engineering, Computer Science, Visvesvaraya Technological University
- Relevant Coursework: Data Structures, Algorithms, Machine Learning, Object-Oriented Programming, Database Management Systems, Software Engineering, Computer Networks

SKILLS

Methodologies and Technologies: OO Design Patterns, Agile/Scrum Development, Scrum, Agile, JIRA, Git, Unity, Open XR, VR Development Programming Languages: Java, Python, C++, C, HTML/CSS, JavaScript (Node.js, React)

Machine Learning and Analytics: Unsupervised (K-means, PCA, etc.) and Supervised (Nearest Neighbor, Naive Bayes, Decision Trees, Linear Regression, Support Vector Machines (SVM), Neural Networks), Predictive Modeling, TensorFlow, PyTorch, Scikit Learn, Apache Spark, Hadoop Web and Cloud Technologies: Django, FastAPI, Flask, RESTful API, SOAP API, AWS (EC2, EMR, RDS, S3, Lambda, Redshift, Athena, Glue), Databricks/Spark, PostgreSQL, SparkSQL, Python, Pandas, PySpark, Apache Airflow, Google Cloud (Compute, dataproc, BigQuery, Vertext AI), Azure Databases and other: MySQL, PostgreSQL, MongoDB, Tableau, Power BI, Excel

EXPERIENCE

Machine Learning Engineer | Staples, Inc |

May 2023 - Sep 2023

- 1. Developed a state-of-the-art model for anomaly detection, yielding a 25% reduction in fraudulent transactions and delivering annual cost savings of \$500,000.
- 2. Pioneered generative AI to streamline data processing, leveraging distributed computing to achieve a 40% improvement in data throughput.
- 3. Harnessed the Spider dataset to generate context-aware text-to-SQL queries, contributing to a 45% reduction in query generation time.

Data Science Research Assistant | Mass General |

Jan 2023 - May 2023

- Employed cutting-edge machine learning techniques to decipher complex patterns in radiation-treated brain tumors, resulting in a 10% enhancement of treatment planning accuracy.
- 2. Engineered efficient data pipelines, trimming data processing duration by 20% while bolstering reporting precision.

Machine Learning Research Assistant | Boston University |

Jan 2023 - Present

- 1. Leveraged Deep Learning methodologies to unlock insights from Mergers & Acquisitions data, revealing latent trends and strategic opportunities.
- 2. Conducted a comparative analysis of M&A activity across GICS sectors, facilitating data-driven decision-making.
- 3. Co-authored a research paper published at the EAI Conference on Computer Science and Education in Computer Science (EAI CSECS 2023).

Fellowship for Innovative Research | Boston University |

Sep 2022 - Dec 2022

 $1. \ Spearheaded \ the \ development \ of \ a \ cutting-edge \ web \ 3.0 \ VR \ prototype \ for \ collaborative \ applications, securing \ funding \ for \ this \ pioneering \ project.$

Software Engineer II | DeepVue.tech |

Apr 2022 - Jul 2022

- Architected machine learning-based APIs for automated Know Your Customer (KYC) processes, achieving a 40% reduction in manual verification duration.
- $2.\ Directed\ the\ scalability\ and\ optimization\ of\ various\ microservices\ through\ DevOps\ practices,\ propelling\ a\ 25\%\ enhancement\ in\ system\ efficiency.$

Software Engineer II | Verloop.io |

Jan 2020 - Mar 2022

- 1. Developed machine learning-based alerting and monitoring implementations (sentry & grafana), reducing 15% in system downtime.
- 2. Championed a comprehensive metrics dashboard, empowering teams with actionable data insights.
- 3. Led and mentored a team of three software engineers, catalyzing a remarkable 30% acceleration in project delivery.

Software Engineer I | DesignString |

Dec 2018 - Jan 2020

- 1. Developed an ML-driven Aviation Asset Management platform using Django and ReactJS, saving over \$50,000 by automating manual data entry.
- 2. Automated robust database backup and encryption mechanisms, fortifying data security and regulatory compliance.
- 3. Cultivated and managed an Objectives and Key Results (OKR) management tool, culminating in a 20% boost in team productivity.

Data Analyst | HackerEarth | Jun 2018 - Dec 2018

1. Devised advanced quantitative and qualitative market analysis methods, automating the data retrieval process and reducing manual load by 80%.

Co-founder | Talkvert.com

1. Co-founded and directed the product development journey of a pioneering virtual stage platform fortified with machine learning-driven capabilities.

PROJECTS

E-commerce ETL Data Warehouse

1. Developed a robust e-commerce data warehousing solution using Python for data processing, PostgreSQL for database management, pgAgent for job scheduling, and Tableau for insightful data visualization and reporting.

Distributed Deep Learning using TensorFlow

1. Implemented a distributed DC GAN model on TensorFlow for generating unique portraits, utilizing AWS SageMaker for scalable cloud computing and distributed training techniques to optimize performance.

Analyzing Remote Work Productivity

- 1. Employed various classification algorithms such as Rpart, J48, KNN, Gradient Boosting, and Naive Bayes for an in-depth R-based analysis of remote work's impact on productivity."
- Integrated multiple attribute selection methods, including Chi-Square Test, Recursive Feature Elimination (RFE), Gini Index, Information Gain, and ReliefF, to enhance the accuracy and relevance of productivity impact analysis.

HONORS & AWARDS

- 1. Runner-Up representing India in the Great Wall Cup International Soccer Championship held in Beijing, China
- 2. Captain and won the University Soccer championship in 2016
- 3. Published author for EAI Conference on Computer Science and Education in Computer Science EAI CSECS 2023.

LEADERSHIP & ACTIVITIES

- 1. Captained the football team for school, university, and club.
- 2. Represented the national team of India in China for Soccer.