

SHAMBHAVI AVINASH KULKARNI

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WORK EXPERIENCE

AI Specialist & Data Scientist | Macmillan Learning | Austin, TX Nov 2023 – Present

- Initiated a data-driven strategy to challenge and refute user retention and engagement hypothesis across 12 disciplines, and proposed better customer segmentation strategies using correlation and clustering analysis
- Improved identification of at-risk courses by 42% by validating existing performance metrics and replacing them with an XGBoost model, ensuring higher accuracy in targeted email campaigns
- Executed A/B testing on AI tutor across 500+ users and utilized NLP techniques to identify key user queries, boosting user satisfaction and enhancing product responsiveness
- Assessed the impact of AI tutor on student performance leveraging statistical analysis and regression models to predict improvements in student grades with and without AI tutor assistance
- Estimated cost and token requirements across various LLM models for projected improvements in the AI tutor
- Achieved an 89% precision score in predicting potential customers with an XGBoost model and applied K-Means clustering to uncover patterns among top customers, enabling targeted marketing strategies
- Secured funding for an AI-powered academic scheduler by successfully presenting a POC during a Hackathon
- Leading a team of 3 in architecting, engineering and testing advanced prompt strategies for the AI-powered academic scheduler on Humanloop and OpenAI Playground platforms to improve user experience

Data Scientist | Rainforest Partnership | Austin, TX Jun 2023 – Nov 2023

- Established a data science team to drive donor acquisition through data analysis, and Tableau dashboards
- Optimized fundraising effort by 8% by collaborating with cross functional teams and utilizing Google Analytics to map user journey across company websites

Data Engineer Intern | Zwiift Inc. | Long Beach, CA May 2022 – Aug 2022

- Processed 1.4 TB of user data on AWS, applied data mining techniques and SQL queries to detect and mask Personally Identifiable Information (PII) ensuring GDPR compliance
- Boosted processing capacity by 20%, integrating PySpark for scalable data processing, creating Airflow DAGs for data pipeline scheduling and automating deployment with Kubernetes
- Streamlined data security, improving issues by 40%, by designing and developing a robust ETL pipeline

Graduate Research Assistant | Center for Translational Neuroimaging Lab | Boston, MA May 2022 – Jul 2022

- Engineered and optimized a machine learning pipeline using GCP to train, deploy, and manage ML models
- Processed and analyzed data from 20+ neuroimaging experiments using advanced statistical techniques, achieving a data quality score of 87% through rigorous cross-validation methods

Data Scientist | Algoanalytics Pvt. Ltd. | Pune, MH Jun 2020 – Jul 2021

- Initiated strategic data driven market research, identifying consumer preferences to inform business decisions
- Led a team of 4 interns to develop a virtual try-on web app for clothes, utilizing computer vision, Generative AI (PyTorch, TensorFlow), pose estimation, and body segmentation
- Devised and presented a project methodology to 5 stakeholders for leveraging an AutoML platform - Dataiku

TECHNICAL SKILLS

Scripting Languages:	Python, Java, R, SQL
Data Science tools:	scikit-learn, Hadoop, PyTorch, TensorFlow, Tableau, Power BI, Statistics, Google Analytics
Engineering tools:	AWS, Git, Airflow, Apache Spark, Kubernetes, Docker, NoSQL, Salesforce, Agile

EDUCATION

Northeastern University, Khoury College of Computer Sciences Boston, MA	Sep 2021 – May 2023
Master of Science, Computer Science	GPA: 3.8/4.0

Savitribai Phule Pune University Pune, MH	Aug 2016 – Jul 2020
Bachelor of Engineering, Computer Engineering	GPA: 8.5/10

COCURRICULAR AND VOLUNTEERSHIP

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- **Graduate Teaching Assistant** | Web Development | React, Node.js, MongoDB, JavaScript, HTML/CSS
 - Collaborated in an initiative – ‘CodeHerWay’ – to implement data science projects with female professionals