

VIN TYAGI

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EDUCATION

University of Massachusetts Amherst

B.S. in Computer Science

Amherst, MA

Sep. 2022 – May 2025

- **GPA:** 3.801
- **Coursework:** Database management, Information Systems, Data Science, Data Visualization, Artificial Intelligence, Intro to ML, Neural Networks, Principles of Data Science, Applied Information Retrieval

University of Massachusetts Amherst

B.S. in Mathematics (Concentration in Statistics and Data Science)

Amherst, MA

Sep. 2022 – May 2025

- **GPA:** 3.801
- **Coursework:** Advanced Linear Algebra Applications, Regression Analysis

University of Massachusetts Amherst

M.S. in Computer Science (Concentration in Data Science)

Amherst, MA

Sep. 2025 – Present

EXPERIENCE

Data Science & Analytics Intern

June 2025 - August 2025

Kalderos

Boston, MA

- Built a Python-based text classification tool (**Pandas**, **scikit-learn**, **imbalanced-learn**, **LightGBM**) to categorize [Under NDA], **cutting manual binning effort by roughly 87%** while ensuring consistency in prediction
- Worked cross-functionally with product consumers to validate model results and analyze consistency in prediction strategy
- Engineered the project into production workflow, ensuring continuous ingestion of fresh production data and upload of predictions into storage (**Snowflake**, **Git**, **Azure Blob Storage**)
- Optimized prediction uploads to Snowflake by **45%**, balancing data ingestion and memory allocation

Technology Intern

May 2024 – Aug 2024

DataScan

Alpharetta, GA

- Worked cross-functionally with data analytics teams to spearhead stress test functionality for RiskGauge, allowing test volumes of up to **130%** of production data
- Developed features using full-stack development (**Java**, **.NET**, **Angular**), delivering key client-requested features to the RiskGauge application and producing clean, efficient, and well-tested code
- Developed test suites and created a dynamic logging schedule through scripting within CI/CD infrastructure (**YAML**, **Bash**, **GitLab**) to ensure robust and scalable deployment pipelines

Undergraduate Research Assistant

Oct. 2024 – Jan. 2025

UMass SOLAR Labs

Amherst, MA

- Collaborated with Professor Hajiesmaili and graduate students to pioneer novel approaches in improving video content delivery systems.
- Designed pre-fetching algorithm models for short video platforms, to enhance QoE for users
- Designed a **BFS** search to **MDP** translation (**Python** in order to guarantee optimality of a solution

SKILLS

Languages: Python, R, SAS, PostgreSQL, Mongo, Java, C#, C, JavaScript/TypeScript, HTML/CSS

Libraries & Frameworks: Scikit-learn, TensorFlow, PyTorch, LightGBM, Node.js/Angular/React, Microsoft .NET

Data tools: Snowflake, GitHub, Azure Blob Storage/Container Service, AWS S3, DBT

Workflow: GitHub Actions, GitLab CI/CD, AWS Lambda

Certifications: AWS Certified Cloud Practitioner

PROJECTS AND OUTSIDE EXPERIENCE

Undergraduate Course Assistant

February 2025 - May 2025

- Course Assistant for Database Management class
- Responsible for assisting students in understanding key DB principles, requiring advanced knowledge of **PostgreSQL**
- Enforcing course structure and assessing student performance

American Statistical Association - DataFest Hackathon | R, Python

Spring 2025

- Received data from undisclosed source to provide motivated, business-oriented solutions
- Provided insights and consulted on trends identified in data
- **Best in Panel** for the 2025 cohort of the competition

Data Augmentation Research Project | torch/torchvision, pandas, numpy, matplotlib

Fall 2024

- Researched the effect of image perturbations on classification performance
- Used diffusion models to generate single image embeddings, with the end goal being the generation of semantically different images to boost the dataset
- Implemented **ResNet50** on a custom subset of **ImageNet**

HackUMass XII Project | MongoDB, Express.js, React.js, Node.js

Fall 2024

- Designed and helped develop a game used to test user memory and color recognition
- Collaborated in a team of developers in order to deliver a **MERN** stack persistent web application
- **Ranked top 5** in UI/UX category