

Austin Fairbanks

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Education

University of Massachusetts Amherst, BS in Computer Science	Sept 2023 – May 2026
University of Massachusetts Amherst, MS in Computer Science (Focus in Data Science)	Sept 2026 – May 2027
<ul style="list-style-type: none">GPA: 4.0/4.0Coursework: Practical Applications of Data Management (CS345), Introduction to Machine Learning (CS 389), Introduction to Algorithms (CS 311), Introduction to Software Engineering (CS 320)	

Publications

Hyperparameter Optimization Research	Summer 2024
<ul style="list-style-type: none">Developed a guide on the implementation of multiple hyperparameter optimization frameworks (Keras Tuner, Optuna, Scikit-learn)Identified and summarized strengths and weaknesses of each framework to aid in future model developmentElaborated on poorly documented advanced capabilities of each frameworkTech Stack: Python, TensorFlow, Scikit-learn, Optuna, Keras Tuner	

Experience

Intern , Corning Incorporated (through Magnit) – Corning, NY	July 2024 – Aug 2024
<ul style="list-style-type: none">Developed practical implementation guidelines for automated hyperparameter optimization across frameworksEngineered reusable data preprocessing pipelines for computer vision applicationsImplemented measurable data comparisons to evaluate tuning algorithm performance	
Frontend Developer ML-Powered Health Analytics Tool , MyEdMaster – Remote	Dec 2024 – Jan 2025
<ul style="list-style-type: none">Redesigned and refactored the React-based frontend for a machine learning applicationIntegrated frontend components with a Django backend and AWS infrastructure, ensuring seamless data flow between user inputs, ML model predictions, and results visualizationCollaborated with data scientists and backend engineers to optimize system performance for scalability	
Intramural Manager , UMass RecWell – Amherst, MA	Aug 2024 – Present
<ul style="list-style-type: none">Aid in facilitating intramural sports by assisting participants and training referees.Apply conflict resolution, teamwork, and problem-solving skills to ensure enjoyment of participants.	

Projects

RateMyProfessors Analytics & Dataset (In Development)	Jan 2025 - Present
<ul style="list-style-type: none">Developed a GraphQL-based web-scraping pipeline to collect 5+ million reviews across the top 100 US universitiesCreating and maintaining an open-source dataset on Kaggle for academic research and analysisBuilding interactive analytics dashboard to provide insights into professor performance metrics and student sentimentUsed feature engineering and machine learning to analyze trends in professorsTech Stack: Python, Pandas, Matplotlib, Jupyter Notebooks, Sumy, Textblob	

Skills

Languages: Python, Java, JS, TS, HTML, CSS, C, SQL
Libraries: Keras/Tensorflow, Scikit-Learn, PyTorch, NumPy, Panadas, Matplotlib
Frameworks: Jupyter Notebook, Keras Tuner, Optuna, React.js, Node.js, React-Native
Other Skills: Hyperparameter Tuning and Optimization, Scientific Writing / Analysis, Webscraping, LaTeX

Leadership & Activities

Hack UMass XI	MinuteMunch: Nov. '23
Midwest Blockchain Conference	MidwestBlockchain: Nov. '24
First Tech Challenge Robotics - Lead Programmer (2021-2023)	FTC Flare: 2021 - 2023