

Muhammad Zaem Chaudhary

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Programming Languages: Python, Java, JavaScript, TypeScript Ruby, Visual Basic, C, C++, SQL , Power BI, R

Frameworks: Tensorflow, Pandas, NumPy, Scikit-learn, PyGame, Keras, XGBoost

Tools: Git, Jupyter Notebooks, Attio, Agile, Scrum, CI/CD, Lens Studio, Microsoft Suite

Education

University of Massachusetts Amherst

GPA 3.9

Expected Graduation: May 2027

BSc Computer Science - Artificial Intelligence | Deans' List | Chancellor's Award

BS Mathematics - Data Science, and Statistics

Courses : Data Structure & Algorithm, Object-Oriented Programming, Calculus, Linear Algebra, Statistics, Introduction to C, Marketing

Experience

Incoming Personalizing LLM and Computer Vision Research Fellow

Sep 2024 – Present

Professor Hamed Zamani | Center for Intelligent Information Retrieval

Amherst, MA

• TBD

Neftwerk | [Github Code and Demo](#) | Jupyter, REST API, Git, Attio, Excel, Figma

May 2024 – July 2024

Data Science Intern

Remote, PA

- Designed and sorted data from CSVs to Attio dashboards to improve client information accuracy and operational efficiency by 60%.
- Leveraged Attio's REST API to implement filtering and pagination, optimizing data retrieval by 30% and enhancing user experience.
- Structured app's code and documentation on GitHub, contributing to increased project workflows and easier team collaboration.

Undergraduate ML Researcher

Jun 2024 – Aug 2024

June Jeong (PHD) | University of Massachusetts Amherst | [Research Poster](#)

Amherst, MA

- Optimized a CNN for ASL recognition, achieving a 97% F1 score through data augmentation and additional convolutional layers.
- Utilized ResNet pre-trained models to enhance accuracy to 98% and reduce overfitting, improving generalization on unseen data.
- Enhanced model robustness in Keras with batch normalization, and the Image Data Generator for consistent validation performance.

Snapchat (Snap Inc.) | [Github Code](#) | [Feature](#) | [Lens](#) | Lens Studio, Blender, MySQL, Tableau

Mar 2024 – Apr 2024

AR & VR Development Extern

Remote, CA

- Designed a soccer-themed AR lens incorporating Snap's Lens Studio and 3D modeling, certified by Snap Inc.'s Head of Entertainment.
- Launched a Snapchat lens inspired by Reebok and soccer, compatible with iOS and Android, gathering views from 100+ countries.
- Conducted data-driven market research in sports and technology using Tableau, and MySQL enhancing data visualization by 30%.

Projects

Hack(H)er413 Hackathon Winner: "Best Use of Software" | [Github Code](#) | [Demo](#) | Next.js, Tailwind, Firebase, Gemini.ai, Assembly.ai

- Developed an AI-driven app for customized interview preparation and organization; enhancing users' interview preparation by 35%.
- Created a speech analysis feature that provides tailored responses and a score based on candidates' answers and job descriptions.
- Incorporated an interactive dashboard to display user's upcoming events, simplifying the applications process for users by 48%.

LeetBank | [Github Code](#) | [Web App](#) | ReactJS, JavaScript, HTML, CSS, ExpressJS, Firestore

- Developed a full-stack React app for storing, annotating, and categorizing 3000+ LeetCode questions, streamlining coding practice.
- Designed an intuitive interface with over 10 animations, boosting user engagement by 30% and enhancing the coding experience.
- Built a search algorithm, enabling users to access LeetCode questions 40% faster, optimizing 6 API calls into one GraphQL request.

Sonar Signal Classification | [Github Code](#) | XGBoost, Python, SHAP, SMOTE, Pandas, NumPy, Matplotlib, Scikit-learn

- Enforced XGBoost for classifying sonar signals, using SMOTE to balance a 208 row dataset; resulting in 95% precision & 87% F1-score.
- Analyzed 20 features via XGBoost's feature importance & SHAP; revealing factors that drive classification, providing deeper insights.

Leadership & Communication

Tour Guide and International Admissions Fellow

Dec 2023 – Present

University of Massachusetts Amherst

Amherst, MA

- Orchestrated on campus and virtual tours and events, showcasing UMass's vibrant environment to 500+ prospective students.
- Managed student inquiries via phone and email, ensuring data confidentiality (FERPA), and added & organized 3000+ Excel entered.

Clubs: Secretary of UMass Cricket Club; Member of Pakistan Student Organization, Machine Learning Club and Pickleball Club.

Languages: English, Urdu, Hindi, Punjabi, Saraiki

Certificates

Stanford University - Machine Learning Specialization by Andrew Ng

Duke University - Linear Regression and Modeling by Dr. Mine Çetinkaya-Rundel

Google IT Support Fundamentals