

# Muhammad Zaeem Chaudhary

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

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

**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

**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 Researcher** | [Research Poster](#)

**Jun 2024 – Aug 2024**

*University of Massachusetts Amherst*

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.

**Predictive Analytics for Olympic Medal Counts using Machine Learning** | [Github Code](#) | Python, Scikit-learn, Pandas, NumPy

- Transformed Kaggle's 2200- lines athlete-level dataset into dynamic team-level datasets, by effectively classifying each entry.
- Executed a machine learning endeavor, by performing the cleaning and preprocessing of complex dataset, leveraging Linear regression with mean squared error for precise prediction of 2026 and further Olympics medal counts for each country in Olympics.

## 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