Atharva Vikas Jadhav
atharva.ek@gmail.com — 716 295 3960 — Buffalo, NY 14214

Education

The State University of New York, University at Buffalo August 2024 – June 2026
MS in Computer Science & Engineering, Specialization – Research Track (3.81/4.0)

- **Independent Study** (Thesis) – Conducting self-supervised learning research under Dr. Nasrin Akhter to develop transformer-based SER models, optimizing feature extraction and classification accuracy in low-resource audio datasets.
- **Research Assistant** – Conducted research on duration reduction in ASR and TTS systems, analyzing the effects of homophones and lexical frequency, under the supervision of Professor Cassandra Jacobs.

Symbiosis International University
MS in Computer Application, Specialization – AI and Data Science Track (8.83/10.0) Jun 2020 – Jun 2022
Bachelor in Computer Application, Specialization – Software Engineering Track (7.93/10.0) Jun 2017 – Jul 2020

Work Experience

Crimsonbeans Ltd, Software Engineer Oct 2023 – Apr 2024

- As a member of the payment processing team, implemented in-app purchases for the Play Store and App Store, integrating recurring payments and cancellation features.
- Optimized transaction processing by deploying dedicated cloud functions to handle purchase validations, reducing processing time and improving user experience.
- Conducted a comprehensive analysis of legacy Bluetooth code in a React Native app, identified and resolved intermittent disconnections, leading to a growth in stability through code refactoring and error handling.

Crimsonbeans Ltd, Jr. Software Engineer Dec 2021 – Jan 2023

- As a part of Iguanalytics group, developed a React Native app that retrieves AEMO energy data, providing real-time pricing insights.
- Engineered a real-time data synchronization system in React Native by utilizing socket listener and Context API, declining data transmission overhead.
- Worked on cloud-based data triggers using MSSQL and Azure Logic Apps that pushed notifications to subscribers via APIs, resulting in a reduction in notification latency and increased reliability.

Projects

Probing Wav2Vec2 Jun 2025 – Aug 2025

- Visualized acoustic word clusters in 3D by projecting wav2vec2 audio embeddings with t-SNE and aligning text using the Montreal Forced Aligner (MFA).

Augmentative and alternative communication for societal good (GitHub) Mar 2025 – May 2025

- Developed a locally deployable NLP tool for AAC users, leveraging GPT4ALL and fine-tuned language models to generate fast, context-aware, and empathetic responses.

Wikipedia Chat Bot (GitHub) Oct 2024 – Dec 2024

- Built a scalable search and summarization system by scraping 50,000 Wikipedia summaries, indexing them with SOLR, and deploying a Flask server with a React frontend on GCP.
- Designed an intelligent response pipeline using zero-shot classification for message categorization, integrating a Blenderbot-based chatbot for casual conversations and T5 for summarizing SOLR query results.

In-place convolution with OpenMP (GitHub) Oct 2024

- Developed a C++ program applying a 3×3 matrix kernel to a 1D vector (representing a 2D float array) using multithreading with OpenMP, achieving 70% efficiency on 64 processors in an HPC environment.

Certificates, Contributions & Skills

- **Certifications:** Machine Learning by Andrew Ng, The Complete 2021 Web Development Bootcamp by Angela Yu, Architecting with Google Compute Engine.
- **Volunteering:** Built & maintained the website of Life Catalyst Foundation, an NGO that works to improve the lives of marginalized communities, using React, to create a user-friendly & informative experience for website visitors.
- **Skills:** React, Push Notifications, PyTorch, OpenMPI, OpenMP, CUDA, Cloud Computing & Machine Learning.