

Dhanwanth Parameswar

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Education

University at Buffalo

Buffalo, NY

Bachelor of Science in Computer Engineering, Robotics Minor

Expected May 2028

- Honors College Scholar | GPA: 3.91
- Relevant Coursework: Data Structures (CSE 250), Systems Programming (CSE 220), Intro to Computer Science II (CSE 116), Intro to Discrete Structures (CSE 191)

Experience

Audio Plugin Developer

April 2023 – Present

NEST Acoustics

- Engineering VST audio plugin software using HISE/JUCE for a virtual instrument company, enabling users to play and manipulate audio samples.
- Collaborated with the founder to define product specifications and user interface requirements.

Research Intern - AI/Machine Learning

May 2024 – October 2024

Rochester Institute of Technology

Rochester, NY

- Worked under the guidance of Professor Haibo Yang to explore federated learning networks and practical AI applications.
- Developed an in-browser AI image classifier using TensorFlow.js, leveraging a MobileNetV3 base model with a custom head trained on the Caltech 256 dataset.
- Engineered the user interface with React and Tailwind CSS, utilizing the Filepond library for robust image input.

Swim Instructor/Lifeguard

March 2024 – June 2025

YMCA of Rochester

Pittsford, NY

- Ensured safety for dozens of swimmers in a high-traffic pool environment while instructing children in fundamental and competitive swimming techniques.

Projects

Iris (AI Interview Coach) | TypeScript, React, Cloudflare Workers, Google Gemini API

November 2025

- Engineered a serverless backend using Cloudflare Workers to securely fetch and process audio recordings and PDF resumes.
- Integrated the Google Generative AI API to transcribe interview conversations, analyze candidate sentiment, and generate structured JSON objects with actionable coaching tips.
- Developed a responsive user interface utilizing React, TypeScript, and Tailwind CSS to present the AI-generated feedback to users seamlessly.

Library Management System | PHP, JavaScript, MySQL, HTML, CSS

September 2023 – May 2024

- Engineered a full-stack web application to digitize a physical inventory of 1,000+ volumes, serving a community of ~150 members.
- Reduced book return processing time by ~95% (from 5 mins to <15 seconds) by implementing indexed database queries to replace manual logbook searching.
- Streamlined asset tracking for 200+ loan transactions, eliminating manual clerical errors and ensuring data integrity for lost item tracking.

Dropqua | JavaScript, PHP, Docker, MySQL

June 2024 – July 2024

- Engineered a real-time web application for seamless text and file sharing across devices without page reloads.
- Utilized Server-Sent Events (SSE) with a PHP backend to efficiently stream data from a MySQL database to the client.
- Designed an intuitive user interface and developed an iOS Shortcut integration to maximize ease of use.

Technical Skills

Languages: Java, Python, C/C++, PHP, SQL, JavaScript/TypeScript, HTML/CSS

Technologies: React, Tailwind CSS, Node.js, TensorFlow.js, HISE/JUCE, WordPress, Git, Docker, OCI, GCP