SALMAAN EJAZ

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EDUCATION

State University of New York at Old Westbury   Old Westbury, NY
Bachelor of Science in Computer Science   *Sept. 2022 – May 2026*

EXPERIENCE

Software Engineering Intern   January 2025 – May 2025
Saberin Software   *Hauppauge, NY*
- Accelerated **AI** processing pipelines by transitioning from a **string-based** to a **channel-based** architecture, reducing output processing time by over **50%** and improving **real-time data throughout**.
- Implemented **cross-application state management** using **.NET** and **Blazor**, minimizing redundant network calls and streamlining user workflows across multiple solutions.
- Developed and enhanced **full-stack features** with **C#**, **.NET Core**, and **Blazor** for enterprise-scale applications, increasing system reliability and performance.
- Collaborated with cross-functional teams to integrate **AI** capabilities into existing services, enabling advanced **data flow** and analytics across the platform.

Undergraduate Research Assistant   September 2024 – Present
State University of New York at Old Westbury   *Old Westbury, NY*
- Designed a **reinforcement learning** system for automated network slicing across **5G-enabled IoT** devices, improving network adaptability and **resource efficiency**.
- Developed and optimized **machine learning** models with **FastAI** and **PyTorch** on **Kaggle**, leveraging latency data to enhance IoT network slicing algorithms.
- Utilized **AWS** to simulate and deploy **reinforcement learning** models for IoT network optimization, reducing latency variability and refining **resource allocation** strategies.

Tutor   September 2024 – December 2025
State University of New York at Old Westbury   *Old Westbury, NY*
- Provided individualized and group tutoring in **Java** syntax, **programming logic**, and **Data Structures & Algorithms**, clarifying complex concepts with structured examples.
- Mentored students in **code optimization** and **algorithm design**, reinforcing best practices and computational efficiency.
- Strengthened students' **analytical skills** by guiding them through **calculus** and **Java problem-solving**, fostering critical thinking and technical proficiency.

PROJECTS

FairHealthFinder | *Javascript, MongoDB, Express, React, Node, Next, TailwindCSS, Groq, Langchain*   February 2025 – Present
- Led the design and implementation of the entire **backend** using **Node.js**, **Express**, and **MongoDB**, while also developing multiple **React** components on the front end, resulting in a robust platform for hospital matching based on cost, quality, and racial bias metrics.
- Aggregated data from over six national and state-level **healthcare datasets**, creating a unified scoring system that factors in **cost transparency**, **patient satisfaction**, and **racial bias** to guide user hospital choices.
- Integrated **Langchain** and **Groq** with **LLaMA 3.3-70B** to develop an **AI-powered chatbot**, providing personalized healthcare recommendations tailored to individual demographics, symptoms, and preferences.
- Oversaw **team collaboration** and source control, establishing **Git** best practices, mitigating merge conflicts, and ensuring a scalable design for future expansions such as **symptom tracking** and real-time recommendations.

SimpliHealth | *Javascript, React, Next, TailwindCSS, Gemini, API*   November 2024 – Present
- Built a responsive, user-friendly interface with **ReactJS**, **NextJS**, and **TailwindCSS**, enabling seamless navigation and an **intuitive user experience** for non-expert users seeking medical information.
- Developed a **backend pipeline** leveraging **Google Gemini** to analyze user input and the **ClinicalTrials.gov API** to retrieve relevant clinical studies based on a user's conditions/symptoms, ensuring **tailored recommendations** based on individual profiles.
- Integrated **real-time data processing** with **Google Gemini** and **ClinicalTrials.gov**, dynamically generating **personalized health insights** and **study summaries** for users.

Python Fitness Tracker | *Python, API, Pygame*   September 2021 – December 2021
- Served as Software Lead for a team of two students to develop a fitness tracker app, supporting users' fitness goals.
- Led debugging procedures, organized weekly meetings, and maintained open communication, helping to prevent and resolve team disputes.

TECHNICAL SKILLS

Languages: Java, Python, CSharp, C++, SQL, JavaScript, HTML/CSS,
Frameworks: .NET, React, Node.js, Express, NextJS,
Developer Tools: Git, Linux, VIM, VS Code, Visual Studio, PyCharm, IntelliJ
Libraries: Blazor, FastAI, Pytorch, Pandas, NumPy