Omar Badr

424-413-3839 | badromar955@gmail.com | linkedin.com/in/omarbadr0 | github.com/badromar00 | omarbadr.me

EDUCATION

San Diego State University   San Diego, CA
Master of Science in Computer Science   *May 2025 - Dec. 2026*

San Diego State University   San Diego, CA
Bachelor of Science in Computer Science (GPA: 3.6, Major GPA: 3.9)   *May 2025*

EXPERIENCE

Backend Software Engineer Intern   Nov. 2024 – Present
BreatheIT Solutions   *Eagan, MN | Remote*
- Developed backend with **Model-View-Controller** pattern, managing **28+ API** endpoints for **CRUD** operations using **Node/Express, JWT authentication, PostgreSQL**, and error handling for date-based queries
- Built **OAuth 2.0** authentication system, implementing token encryption, session management, and automated token refresh with **Google API** and **PostgreSQL** storage
- Worked with front-end team using **React Native** to integrate user-facing features with **PostgreSQL** database, ensuring data synchronization and improving user experience
- Deployed updates on **Google Cloud Platform**, configuring **NGINX** for load balancing and using **PM2** for process management to ensure uptime and simplify deployment

Full Stack Software Developer Intern   May 2024 – Aug. 2024
Eligico   *Los Angeles, CA*
- Developed and maintained **5+** dynamic websites with **React, MySQL, and PHP,** improving page load times by **20%** and increasing user engagement by **15%**
- Optimized **MySQL** database by normalizing schemas, indexing key columns, and refining queries for improved data storage and performance
- Managed containerized applications using **Docker**, to streamline development workflows and improve deployment efficiency

PROJECTS

Football Connections | *React, Node, Express, MongoDB* | football-connections.onrender.com   Jun. 2024 – Present
- Developed and deployed, a **React/Node.js** word connections game, getting **2,000+ visits** in **3 months**
- Implemented secure backend for feedback and statistics collection using **Express.js with MongoDB**, incorporating rate limiting, data sanitization, and Helmet security middleware to prevent common web vulnerabilities

LLM Prompt Enhancer Chrome Extension | *Javascript, OpenAI API* | Github   Jul. 2024 – Present
- Developed a Chrome extension leveraging **OpenAI's GPT-3.5 API**, and **fine-tuned** the model to dynamically expand user prompts, enhancing language model outputs
- Published the extension gaining **20+ downloads** and an average of **5 stars reviews**
- Implemented **asynchronous messaging**, secure **API** integration, and **local storage** for user experience

Unix Shell Implementation | *C++* | Github   Jul. 2024
- Built a **Unix** shell that handles multiple piped commands using low-level system calls (fork, exec, pipe) for process creation and communication
- Created a command parser that finds executables in system PATH and connects processes for commands like "ls — sort — grep", supporting arbitrary pipe chains

MRI Scan Knee Injury Classifier | *Scikit-learn, Tensorflow, Pandas, NumPy, OpenCV* | Github   Nov. 2024
- Preprocessed MRI datasets and extracted features to classify normal and abnormal knee injuries using **SVM and CNN** models, optimizing accuracy and F1-score for imbalanced data.

SKILLS

Languages: JavaScript, Java, Python, C++, SQL, HTML/CSS
Technologies: React, Node, Express, Tailwind, MongoDB, MySQL, PostgreSQL
Developer Tools: Git, Docker, Google Cloud Platform, Postman