

Muhannad Abu Shanab

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EDUCATION

University Of South Florida
Bachelor of Science in Computer Science

Tampa, FL
Aug 2020 – Aug 2024

TECHNICAL SKILLS

Languages: JavaScript, Python, Java, C/C++, SQL, HTML/CSS
Frameworks: Node.js, Express, React, TailwindCSS, Django, .NET, React Native, Bootstrap
Technologies: OpenAI API, OCR (Tesseract.js), pdfjs-dist, REST APIs, Chrome Extension APIs
Tools: Git, GitHub Actions, Postman, AWS, Agile, CI/CD, Multer, ImageMagick, Ghostscript, Power BI, Excel, JIRA

EXPERIENCE

Software Developer

Jacob Javits Center

New York, NY
Dec 2024 – Present

- Developed a Microsoft CoPilot chatbot with AI-driven adaptive cards, reducing ticket volume by **20%** and streamlining vendor support processes.
- Assisted in migrating the company website from Umbargo 7 to Umbargo 13, updating **10+** pages to mitigate security risks and modernize the platform.
- Enabled 5+ departments to adopt ChatGPT Enterprise by building custom GPTs tailored to their workflows, accelerating task automation and improving cross-team efficiency by **30%**.

Software Engineer - Co-Op

Make It Viral Media & Technologies

Tampa, FL
Jan 2024 – Aug 2024

- Built responsive websites and mobile apps using JavaScript, React, HTML, and SQL, boosting client engagement by 25% through UI/UX improvements and mobile-first design.
- Integrated SQL-backed systems and RESTful APIs to support scalable infrastructure and automated CI/CD with GitHub Actions, cutting query times by 15% and speeding up deployments by 20%.

Teaching Assistant

Department of CSE, USF

Tampa, FL
Aug 2023 – Aug 2024

- Mentored over 300 students in C/C++ through one-on-one support and live debugging during office hours, improving assessment scores by 15% and raising course retention by 10%.
- Assessed code-based assignments and delivered targeted feedback to improve coding style and algorithm efficiency, reducing error rates by identifying patterns and guiding corrections.

PROJECTS

Prompted — *JavaScript, React, CSS, Manifest V3, Chrome Extension APIs*

Aug 2024 – Oct 2024

- Built “Prompted,” a Chrome extension leveraging Manifest V3 and Chrome APIs to optimize AI prompts. Boosted response accuracy by 30%, improved interaction efficiency, and enhanced UI/UX to reduce load time by 20%.
- Developed and deployed a branded marketing website using React and CSS to drive user adoption. Integrated the platform with the extension to ensure cohesive functionality across web and browser environments.

AI Resume Matcher — *JavaScript, Node.js, React, OpenAI API, OCR*

May 2025

- Built a full-stack AI tool to match resumes with job descriptions using GPT-3.5 and OCR; increased matching clarity and recruiter-style feedback accuracy by 50%.
- Optimized PDF parsing by combining pdfjs-dist with Tesseract OCR fallback, ensuring 100% compatibility with both text-based and scanned resumes.

SecureCLI Chat — *C++, OpenSSL, AES-256, Unix/Linux, File I/O*

May 2025

- Engineered a Unix-based CLI messaging tool to simulate secure peer-to-peer communication by encrypting messages with AES-256 and shared key/IV validation using OpenSSL.
- Reduced decode failures and improved message integrity by implementing Base64 encoding, timestamped multi-message logging, and robust input/error handling.

Portfolio Website — *TypeScript, React, TailwindCSS, AWS S3, CloudFront, GitHub Actions*

May 2025

- Designed and developed a fully responsive, animated personal portfolio using React and TailwindCSS, showcasing projects and experience; improved engagement through interactive UI/UX features.
- Deployed the site to AWS S3 and CloudFront with custom domain integration; automated CI/CD workflows with GitHub Actions to streamline updates and maintain deployment efficiency.

21 Day Habit Challenge — *Java, Swing, OOP*

April 2025 – May 2025

- Built a Java desktop app using Swing and object-oriented design to help users track and complete custom habits across 21 days, boosting accountability through streak logic and missed-day journaling.
- Implemented a clean, interactive GUI for habit input, daily check-ins, and auto-generated progress reports; ensured accessibility with a lightweight console alternative for low-resource systems.

Image Classifier — *JavaScript, React, REST APIs, Text-to-Speech (TTS) API*

Mar 2025 – Apr 2025

- Built a web app that sends images to a third-party AI API and returns spoken results via a Text-to-Speech API, improving accessibility and user interaction with real-time feedback.
- Developed a responsive React front end with asynchronous API handling for real-time uploads and audio playback, optimizing performance to cut classification and speech output time by 20%.

Distributed Job Crawler — *Python, ThreadPoolExecutor, BeautifulSoup, TF-IDF, JSON/CSV*

May 2025

- Engineered a Python-based multithreaded web crawler to collect, filter, and rank 100+ job listings across platforms using TF-IDF keyword matching. Improved match quality by 60% while tripling crawl speed.
- Implemented retry logic, structured logging, and JSON/CSV export for scalable information retrieval and lightweight deployment in distributed scraping tasks.

Stock Handler — *Object-Oriented C#, .NET*

Jan 2024 – Feb 2024

- Developed a C/.NET app for analyzing stock performance with interactive visualizations, improving decision-making by 20% through intuitive charts and trend analysis.
- Implemented file parsing and optimized data handling to reduce chart render time by 30%, boosting responsiveness and improving real-time performance display.

Friendly Fitness — *JavaScript, React Native, PostgreSQL, Django, Python*

May 2024 – July 2024

- Developed a React Native app using the USDA Food Search API to track meals and weight, increasing engagement by 35% and cutting data retrieval time by 25% through API optimization.
- Developed a full-stack React Native and Django mobile app integrating USDA APIs for real-time meal tracking, boosting engagement by 35%.

Bulls E-Market — *SQL PostgreSQL, Express.js, Bootstrap, React, GitHub Actions*

Apr 2023 – Apr 2023

- Developed “Bulls E-Market,” a responsive web platform with advanced search features, boosting user engagement by 25% and reducing page load times by 30% through user flow optimization and frontend tuning.
- Collaborated with designers and stakeholders in an agile environment to refine product features and implemented CI/CD pipelines with GitHub Actions, accelerating deployments and improving release quality.