# Muhannad Abu Shanab

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#### EDUCATION

#### University Of South Florida

Tampa, FL

Bachelor of Science in Computer Science

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 Concepts: Machine Learning, Natural Language Processing, Information Retrieval, Distributed Systems, Security

Software Development, Unix/Linux Environments

#### EXPERIENCE

#### Software Developer

New York, NY

Jacob Javits Center

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.
- Configured and troubleshooted 20+ routers and switch ports via Cisco DNA (including 4+ Excel-based VLAN migrations), collaborating with cross-functional IT teams to reduce resolution times by 30%.

#### Software Engineer

Tampa, FL

Make It Viral Media & Technologies

Oct 2023 - Nov 2024

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

# Teaching Assistant

Tampa, FL

Department of CSE, USF

Aug 2023 - Aug 2024

- Mentored 300+ students in C/C++ through 1:1 support and live debugging during office hours. Improved assessment scores by 15% and raised course retention by 10%.
- Assessed code-based assignments and delivered targeted feedback to improve coding style and algorithm efficiency. Reduced error rates by identifying patterns and guiding corrections.

#### **PROJECTS**

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

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

Jan 2024 - Feb 2024

- Built "Stock Handler," a C#/.NET app for analyzing stock performance with interactive visualizations. Improved decision-making by 20% through intuitive charts and trend analysis.
- Implemented file parsing and optimized data handling to reduce chart render time by 30%. Boosted responsiveness and improved real-time performance display.

# Bulls E-Market — SQL PostgreSQL, Express.js, Bootstrap, React, GitHub Actions Apr 2023 – Apr 2023

- Built and launched "Bulls E-Market," a responsive web platform with advanced search features. Boosted user engagement by 25% and reduced 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. Implemented CI/CD pipelines with GitHub Actions, accelerating deployments and improving release quality.