Zachary Sanger

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EDUCATION

University at Buffalo   Getzville, NY
Bachelor of Science in Computer Science   *Aug. 2021 – Present*

EXPERIENCE

IT Technician   May 2022 – Present
Techworks Consulting,   *Ronkonkoma, NY*
- Automated repetitive tasks using bash and PowerShell scripts, improving system efficiency and reducing manual effort.
- Troubleshoots and resolves user support tickets involving software, hardware, and network issues across multiple platforms.
- Optimizes ticket resolution processes, enhancing team productivity and reducing downtime.
- Collaborate with other teams to address complex technical issues, ensuring system stability and uptime.
- Communicates solutions clearly to users, contributing to high levels of user satisfaction.

PROJECTS

WealthWise | *React, PHP, SQL, Docker*   Aug 2024 – Jan 2025
- Developed a full-stack financial management tool to provide users with insights into their financial habits, track expenses, and enable goal setting to improve personal financial health.
- Implemented Docker for containerization to ensure consistent development and production environments.
- Collaborated with a team of 4 developers following Agile and Scrum practices, focusing on iterative development and sprint planning.
- Focused on scalability, user experience, and secure data handling to support multiple concurrent users.

RoutineFlex | *HTML, JavaScript, Python, Flask, PostgreSQL, Docker*   Aug 2024 – Jan 2025
- Built a social media application for sharing workout routines and fitness goals as part of a team of 4 to deepen understanding of backend technologies.
- Developed a Flask-based backend to manage API endpoints, database interactions, and server-side logic.
- Implemented a fully Dockerized environment to streamline development, deployment, and maintain consistent environments across all stages.
- Integrated WebRTC and WebSockets for real-time chat functionality, enabling users to interact seamlessly through live web chats.
- Developed a robust authentication system with user registration, login, password recovery, and secure session handling.
- Emphasized data integrity, user-friendly interface, and seamless interaction to foster an engaged fitness community.

EmotionAI | *Python, TensorFlow, OpenCV*   June 2024 – Aug 2024
- Developed a real-time emotion detection system using a fine-tuned ResNet18 model, enhancing accuracy in classifying 7 distinct emotions.
- Trained the Convolutional Neural Network (CNN) on the FER-2013 dataset, optimizing hyperparameters for improved performance.
- Integrated OpenCV for real-time video processing, enabling facial expression analysis from live camera feeds.
- Optimized the model for low-latency inference, ensuring smooth real-time emotion classification for practical applications.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, Bash, PowerShell, HTML/CSS, PHP
Frameworks: React, Node.js, Flask, TensorFlow, OpenCV, Next.js
Cloud & DevOps: Docker, Kubernetes, GitHub Actions
Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Linux (Ubuntu, Debian)
Databases: PostgreSQL, MySQL, MongoDB
AI & Automation: OpenAI API, Hugging Face, LLM Fine-tuning
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn
Networking & Security: TCP/IP, VPN, Firewalls, OAuth, JWT, Wireshark, WebSockets, WebRTC