

Issam Alzouby

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PROFESSIONAL SUMMARY

AI specialist dedicated to translating complex data into meaningful, business-oriented solutions. Transforming existing traditional business needs into modern AI solutions by leveraging machine learning, automation, and data-driven insights.

PROFESSIONAL EXPERIENCE

Duke Heart Center UNC Health - AI Research Consultant

May 2024 – Present

- Awarded 'Best Oral Presentation in Cardiac Surgery' at the 62nd Eastern Cardiothoracic Surgical Society conference
- Our algorithm increased projected organ donation success rates by up to 94% while reducing medical staff workload
- Co-authored a research paper detailing the algorithm's findings, methodology, and state diagram

UNCC AI Center - Undergraduate AI/ML Research Assistant

Aug 2023 – Present

- Leading iOS edge AI development for the Ai4Health Lab and mentoring graduate students with tailored iOS guides
- Converting PyTorch models to CoreML, achieving a 2x improvement in inference speed on Apple's NPU
- Fine-tuned a pre-trained ResNet50 CNN on chest X-ray images for pneumonia detection, achieving 90% accuracy

Data Connecters - IT Manager

Jan 2024 – Jan 2025

- Administered and secured the Office 365 suite, including IAM and Defender, mitigating risks and ensuring compliance
- Traveled across the US to manage conferences and engaged with industry leaders, fostering collaboration and growth
- Trained cross-departmental teams on system tools and processes, driving efficiency and consistent workflow adoption
- Refined HubSpot pipelines for over 900,000 leads, applying Power Query, Power BI & OSINT to boost data fidelity

iRepairCLT - Micro Soldering Technician

Jan 2020 – Dec 2022

- Performed B2B Micro-Soldering repairs on all variations of Apple devices
- Reverse Engineered proprietary ASIC hashing boards and Nvidia Graphics Cards (Primarily RTX 30/40 Series)

PROJECTS

5 Time Hackathon Winner

Aug 2022 – Nov 2024

- NC NASA Hackathon, UNC Chapel Hill's HackNC, NC State Hackathon, and the Truist Immersive Experience
- Developed AI-powered voice translation and bias-reducing applications, securing 1st place in 4 major hackathons
- Leveraged CoreML, PyTorch, OpenAI API, AWS Amplify, and Firebase, demonstrating practical impact and innovation

Wav2Lip PyTorch to CoreML

Aug 2023 – May 2024

- Streamlined the conversion of the Wav2Lip PyTorch model to ONNX and CoreML using Python virtual environments
- Created step-by-step instructions to help lab researchers run inference and replicate the ONNX-to-CoreML conversion

Home Lab - Virtualization and AI-Driven Network Security

Jan 2024 – Present

- Deployed a Dell PowerEdge R620 with Proxmox VE and Tailscale VPN for secure virtualization and remote access
- Built an AI anomaly detection system using Zeek and Isolation Forest, achieving 95% accuracy in detecting threats

EDUCATION

M.S. In Artificial Intelligence | University of North Carolina at Charlotte | May 2026 Graduation

B.S. In Computer Science | University of North Carolina at Charlotte | May 2025 Graduation

Awards: AI Research Grant | 5X Hackathon Winner | UNCC Career Panelist | Chancellor's List | 2025 Truist Student Leader

TECHNICAL SKILLS

Languages: Python, JavaScript, Swift, Java, SQL, C, HTML/CSS

AI & ML: PyTorch, TensorFlow, CoreML, ONNX, Scikit-learn, OpenCV, Hugging Face, Ollama, Prompt Engineering, Fine Tuning

Tech Stack: Node.js, React.js, Pandas, NumPy, PostgreSQL, Model Inference & Conversion

EXTRACURRICULAR ACTIVITIES

Vintage Apple Device Restoration | Google Developer Group | TSA Mentor | Drone Building and 3D Printing | Micro-Soldering