

# Ahmad Amro

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## PROFESSIONAL SUMMARY

Early-career applied software engineer with hands-on experience building and shipping data-driven systems through projects and internal tools. Strong in Python, SQL, and JavaScript, with practical work in data pipelines, inference workflows, and user-facing applications. Deployed 5+ live demos (Streamlit, Hugging Face Spaces, and browser-based ONNX inference) with emphasis on correctness, reproducibility, and clear interfaces. Background in front-end development supports building usable, reliable tools.

## EDUCATION

M.S. Information Technology - Purdue University Northwest

| GPA: 3.97 | 2025

Focus: Software Systems, Data Engineering

B.A. Graphic Design - Palestine Polytechnic University

| GPA: 3.76 | 2022

## TECHNICAL SKILLS

Software & Data Engineering: Python, SQL, JavaScript, REST APIs, JSON, relational databases, ETL/data pipelines, data validation, Git/GitHub

Applied ML Systems: scikit-learn, PyTorch, model training and evaluation, inference pipelines, ONNX export, reproducible experiments

Frontend & User Interfaces: HTML, CSS, responsive UI, component-based interfaces, Streamlit, Gradio, browser-based inference UIs

Tools: VS Code, Jupyter/Colab, Hugging Face Spaces, Webflow, Figma

## SELECTED SOFTWARE PROJECTS

Applied Machine Learning Pipelines (Tabular Systems)

- Built reusable software pipelines for data ingestion, cleaning, feature processing, training, and evaluation across multiple datasets.
- Implemented structured experimentation using train/validation/test splits and cross-validation with consistent metrics.

Neural Input Optimization (NIO) - Deployed Systems

- Built and deployed interactive applications that freeze trained models and optimize inputs using gradient-based methods under realistic constraints.
- Deployed 5+ live demos across Hugging Face Spaces and browser-based ONNX inference, with saved artifacts and reproducible inference behavior.

Client-Side Model Inference - ONNX

- Exported trained PyTorch models to ONNX and implemented inference fully in the browser using onnxruntime-web.
- Reproduced training-time preprocessing on the client to ensure parity between notebook and production predictions.

Website Screenshot Classifier (CNN System)

- Trained a convolutional neural network from scratch and deployed a live upload-to-prediction web demo.
- Focused on inference reliability, input handling, and clear user feedback in the UI.
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## ADDITIONAL EXPERIENCE - APPLIED SYSTEMS & INTERNAL TOOLS

MECA Engineering Corporation - Web Developer | Merrillville, IN | Jan 2024 – Present

- Built and maintained a production website using structured CMS data models and reusable components.
- Integrated third-party APIs (Google Maps JavaScript API) and optimized client-side performance and loading behavior.
- Worked with engineering and business stakeholders to translate requirements into reliable, user-facing systems.

Purdue University Northwest - Professional Assistant | Hammond, IN | 2023 – 2024

- Supported departmental web systems using standardized templates and structured content.
- Coordinated operational tasks across multiple stakeholders in time-sensitive environments.

IQRAA Tech Company - UI Developer | Remote | Dec 2021 – 2023

- Implemented production web interfaces from specifications using HTML, CSS, and JavaScript.
- Collaborated with developers to integrate front-end components into existing systems.