

# Roger Kutyna

Worcester, MA | (781) 539-3966 | [rkutyna@clarku.edu](mailto:rkutyna@clarku.edu)

[LinkedIn](#) | [GitHub](#) | [rogerkutyna.com](http://rogerkutyna.com)

## EDUCATION

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### **M.Sc. Information Technology**, Concentration in Generative AI Expected May 2026

Clark University | GPA: 3.85

- Coursework: Generative AI Model Development, Applications of Gen AI, Generative AI, AI Ethics & Governance, Data Mining & Visualization, Cybersecurity Fundamentals

### **B.A. Computer Science & Sociology**, Summa Cum Laude May 2025

Clark University | GPA: 3.80 | Dean's List

- Coursework: Algorithms, Data Structures, Operating Systems, Database Management, Assembly & Computer Org, Automata Theory, Programming Languages, Data Science, Software Engineering

## TECHNICAL SKILLS

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**AI/ML:** PyTorch, YOLO, ResNet, LLM Fine-Tuning, Agentic Workflows, Prompt Engineering, RAG, Computer Vision, n8n, Streamlit

**Languages:** Python, Java, SQL, HTML/CSS, OCaml

**Frameworks & Tools:** Django, React, Node.js, Pandas, Git, Docker, PostgreSQL, Redis, Nginx, RESTful APIs

**Infrastructure:** Linux (Ubuntu), Cloud Computing (DigitalOcean), Cloudflare Tunnels, Self-Hosted Servers

## PROJECTS

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### **BirdBrained** — Capstone | Computer Vision & ML Pipeline 2026

- Built an end-to-end bird species identification pipeline using YOLO for object detection and a fine-tuned ResNet-50 classifier trained on the NABirds dataset (100 species subset).
- Developed a Streamlit UI for batch inference, image sharpness scoring (patch-based Tenengrad), and automated Lightroom metadata tagging via exiftool.
- Engineered checkpoint comparison tooling to evaluate model accuracy across training runs with per-species top-1/top-5 metrics.

### **Autolist AI** — AI Automation Engineering 2026

- Built an agentic workflow generating complete product listings from a single image, using LLMs with tool calling to identify, describe, research, and generate product images and video.
- Engineered multi-step AI agent orchestration via n8n, integrating vision models, web research, and generative media APIs.

### **AI-Enabled Smart Glasses — Ethical Framework Analysis** 2026

- Analyzing AI-powered smart glasses with edge computing; applying eudaimonic consequentialist ethics to evaluate consent asymmetry and normalization in ambient AI surveillance.

### **Off-Campus Housing Platform** — Clark University Residential Life 2024

- Built a full-stack Django application with Redis, PostgreSQL, Nginx, real-time messaging, and Docker deployment on cloud infrastructure for student housing listings.

### **Personal Portfolio & Blog** — React, Node.js, PostgreSQL 2025

- Built a portfolio site with RESTful APIs, CRUD functionality for project showcases and blog content. [rogerkutyna.com](http://rogerkutyna.com)

## EXPERIENCE

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### **Teaching Assistant — Algorithms (CS 160)** Sep 2024 – May 2025

Clark University, Worcester, MA

- Led weekly office hours on algorithm design, complexity analysis, and problem-solving techniques foundational to ML.
- Guided students through sorting, searching, graph algorithms, and dynamic programming exercises.

## LEADERSHIP & INTERESTS

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- **Founding Member & Outreach Coordinator, Clark University Jam Club** — Weekly collaborative music sessions.
- **Bird Photography & Wildlife Conservation** — Active birder and nature photographer.
- **Research:** Algorithmic management, workplace surveillance, AI governance, labor dynamics in automation.