

Eric Reinhart

eric@reinhart.us • 908-625-6036 • Bridgewater, NJ

<https://www.linkedin.com/in/eric-w-reinhart/> • <https://github.com/EricWReinhart>

Education

Bucknell University, Lewisburg, PA

Expected Graduation: May 2025

Bachelor of Science in Computer Science • Minor in Statistics

GPA: 3.84/4.00

- **Programming Languages:** Python, Java, R (Proficient) | Elixir, C#, C++, JavaScript, HTML (Familiar)
- **Technical Skills:** Git, Agile Methodologies, Object-Oriented Programming (OOP), Excel, Linux

Technical Experience

AI Object Detection and Classification Tool (Python, JavaScript, HTML)

September 2024 - Present

Computer Science Senior Design, Bucknell University, Lewisburg, PA

- Developed a machine learning model using PyTorch and YOLOv11 to detect and classify electrical components
- Designed and implemented an interactive web UI using **Python**, **Flask**, **JavaScript**, and **HTML**, enabling users to upload images and analyze detected components
- Optimized model performance by applying data augmentation and preprocessing, improving accuracy and efficiency
- Collaborated with a 5-person team and client to design and deliver a robust object detection solution

Software Engineer Intern

May 2024 - August 2024

Tinker Air Force Base, Oklahoma City, OK

- Rotated across 5 squadrons, developing and testing various small programs in 1-2 week cycles, gaining hands-on experience across multiple languages
- Created a 3D satellite orbit simulation using flight path data to visualize real-time orbital mechanics (C#, Python, JS)
- Identified and resolved flight simulator bugs using Jira, providing detailed reports and solutions
- Brainstormed and developed solutions with peers, strengthening collaboration, communication, and problem-solving

Summer Researcher for Traveling Salesman Problem (TSP)

June 2023 - August 2023

Bucknell University, Lewisburg, PA

- Collaborated on research for Circulant TSP, with applications to network design and waste minimization
- Developed algorithms in **Java** to analyze how the number of solutions grows with the input size
- Conducted numerical experiments, analyzed patterns, and presented findings to supervisor

Projects

Full Stack Web Development (Phoenix, Elixir)

January 2025 - Present

Full Stack Web Development Course, Bucknell University, Lewisburg, PA

- Built a personal website using Phoenix LiveView and TailwindCSS to create a polished UI
- Implemented secure user authentication and integrated **PostgreSQL** databases into web applications

Pokémon Battle Game (Java, JavaFX, IntelliJ IDEA)

November 2022 - December 2022

Software Engineering Course, Bucknell University, Lewisburg, PA

- Worked closely with a **Scrum** team of 3 to develop a turn-based strategy game with **Java** and JavaFX
- Assigned tasks based on team strengths to ensure an efficient development process and effective problem-solving
- Implemented core features like an intuitive GUI, real-time damage calculations, chat logs, and background music

Additional Experience

Cashier / Grocery Clerk, Seasonal

Mar 2020 - Aug 2022

The Fresh Market, Bedminster, NJ

- Operated a checkout lane in a fast-paced environment and efficiently stocked shelves
- Trained 7+ new employees on checkout and stock procedures, supporting their growth
- Led a team in organizing and packaging 100+ holiday meal orders, ensuring efficiency and accuracy