

Benjamin Lee Dyer

Fort Collins, CO - bdyer5280@gmail.com - 720-320-1601 - <https://www.linkedin.com/in/benjamin-dyer-21259918b>

EDUCATION & PROFESSIONAL DEVELOPMENT

Masters of Science, Computer Science (MSCS) - GPA= 4.000

University of Colorado Boulder: College of Engineering and Applied Science

Graduation: May, 2025

Boulder, CO

- Earned **Graduate Certificate in Artificial Intelligence** as part of MSCS program

Google IT Automation with Python Professional Certification

Coursera Specialization offered by Google

Completed: July, 2022

Online

Bachelors of Science, Mechanical Engineering (BSME)

Colorado State University: College of Mechanical Engineering

Graduation: May, 2021

Fort Collins, CO

ENGINEERING AND TECHNICAL SKILLS

Programming Languages: (Proficient): Python, C, MATLAB, HTML, CSS, **(Familiar with):** Java, R, Ruby, SQL

DevOps & Automation: Continuous Integration (CI), Continuous Deployment (CD), GitHub Actions, Git Hooks, Docker, Bash

Tools and Technologies: Git, Linux (RHEL), VS Code, STM32CubeIDE, Docker, Cloud VPS

Embedded Systems: STM32, Raspberry Pi (3B, Pico), Arduino Leo/Micro

Specialized Software Skills: Test Automation, Robotics, Computer Vision, Machine Learning, Web Design, Signal Processing

RELEVANT WORK EXPERIENCE:

Personal Projects

- (app.pngprint.me) Built and Cloud-Host an automated STL 3D model generator for cookie cutters from static PNG images
- (bendyprojects.com) Created a personal Portfolio website using Python, deployed on Raspberry Pi 3B on my home desk.

Test Engineer II, Agile RF Systems, LLC

Berthoud, CO - Aug. 2023 - Present

- Led design and testing of production software for controlling Phased Array devices and Radar using Python and C
- Led Software Design of controls, signal processing of Radar data using Docker-compose (Podman) to deploy on RHEL
- Architected radar data signal processing pipeline in C and Python and used Docker-compose (Podman) to deploy on RHEL
- Built an extensive Python-based test automation environment for controlling devices, processing data, and report generation
- Automated Phased Array Radar calibration and test using robotic arm positioner for high-precision alignment
- Developed and optimized STM32/Linux firmware for radar PCBs and test ground support equipment (GSE)
- Built CI/CD pipelines to automate testing, deployment, and production workflows
- Developed an internal asset-tracking web app using Python, Flask, and Jinja2, improving data/documentation management
- Managed company-wide Git repositories in Gitea (GitHub analog), improving software collaboration across teams.
- Designed electrical interfaces and created wiring diagrams/harness drawings for deliverable hardware
- Worked with customers to iterate through design requirements for deliverable software systems

Test Engineer I, Blue Canyon Technologies

Lafayette, CO - Nov. 2022 - Aug 2023

- Automated production and administrative tasks using Ruby, Python, and VBA to improve lab efficiency
- Developed utilities in Python and Ruby to automate routine oscilloscope captures and generate HTML reports
- Used Ball Aerospace's COSMOS (Ruby) to create, modify, and debug automated test scripts for electrical hardware
- Performed functional testing on flight and GSE electrical hardware, ensuring compliance with specifications
- Created software-driven automation concepts and presented scope-of-work, POCs, and cost estimates to leadership

Mechanical / Test Engineer (Contract), Microsoft

Fort Collins, CO - June 2021 - Nov. 2022

- Developed machine-vision algorithms to automate object detection and camera targeting using motors
- Automated sensor testing and data processing with Python, MATLAB, and Powershell, improving testing efficiency
- Designed software routines for communication with testing equipment via NET, I2C, and serial connections
- Built simple electrical systems to drive stepper motors, LEDs, microcontrollers, and read thermocouples
- Designed and 3D-printed camera testing equipment to meet project specifications

OTHER EARLY WORK EXPERIENCE:

Project Manager, Mechanical Engineer, CSU Sr. Design Project, Woodward Inc.

Fort Collins, CO, Fall 2020 - Spring 2021

Mechanical Engineering Intern, Redstone Aerospace /II-VI Incorporated Optical Systems

Longmont, CO Summer '16, '17, '19