Nicholas Buryniuk

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EDUCATION

Bachelor of Science in Computer Science August 2020 - December 2024
James Madison University - Harrisonburg, VA
Minor: *Spanish*

Experience

Embedded Systems Engineer Intern at nala March 2025 - Present

- Led end-to-end development of a custom pet tracker, from hardware design to firmware implementation.
- Directed the creation of a custom circuit board and embedded software to connect to nala servers.

Computer Science Coursework

Discrete Structures I & II

- Range of topics from discrete mathematics and theoretical computer science including elementary number theory, matrices, graph theory, automata, computability and complexity theory.
- Created an Encryption and decryption algorithm

Computer Architecture

- Introduction to the design and implementation of modern CPU architectures. Explores hardware-based parallel executDiscrete Structures I & IIion, quantitative performance evaluation, I/O interfacing techniques and hardware descriptor languages.
- Created a processor in RISC-V

Database Systems

- Database design and management with emphasis on data definition, data manipulation and query languages found in modern database management systems
- Created a website using a relational database of a computer game called Dark Souls in Flask Python web developer with PostgreSQL.

Software Engineering

- Processes involved in taking a project from conception all the way to delivery using agile methods
- Created a meme generator that accepted an image and would insert top and bottom text in Java in a scrum structure.

Introduction to Autonomous Robots

- Designing robotic systems that navigate independently in complex environments. Specific topics include localization, mapping, kinematics, path planning and computer vision in ROS2 and Python.
- Created a robot that wanders a map and records important things it saw.

PERSONAL PROJECTS

Host a NAS server for all photos and personal files using TrueNAS.
Host an app server where I run LLMs and store access my NAS using Debian.
Host a Linux server where I remotely code and run programs on Ubuntu.
Built a Raspberry Pi with custom relay hardware to open and close my garage door online.

COMPUTER SCIENCE

CCNE certification coursework	Full Stack Development	Web Development
AWS certification coursework	Collaborative Projects	Github
Relational Databases	Programming Languages	Object-Oriented Programming

SKILLS

Java (Advanced)	Docker (Advanced)	Haskell (Proficient)
C (Advanced)	Kubernetes (Advanced)	macOS (Advanced)
HTML (Advanced)	Python (Advanced)	Networking (Proficient)
Bash (Proficient)	Git (Proficient)	JUnit (Advanced)
Ruby (Proficient)	Rust (Proficient)	Flask (Proficient)
Javascript (Advanced)	CSS (Advanced)	GUI (Advanced)