## PATRICK CROSS

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#### **OBJECTIVE**

Seeking an internship opportunity in software development, data science, cloud computing, AI/ML, or cybersecurity in Summer 2024.

#### **EDUCATION**

Bachelor of Science in Computer Science, Virginia Polytechnic and State University

Expected 2024

GPA: 3.70

Relevant Coursework: Software Design and Data Structures, Intro to Computer Organization, Problem Solving in CS, Intro to Linear Algebra, Intro to Discrete Math, Applied Combinatorics and Graph Theory

#### **SKILLS**

Software Skills Technical Skills EXPERIENCE Python, Java, C, Git, HTML, CSS, AWS, Assembly, Microsoft Office, Microsoft Azure, Linux AI/ML, Pandas, NumPy, Simulation Environments, Data Analytics, SciKit-Learn

# Software Engineer Intern

Jun 2023 - Present

Parsons Corporation/BlackHorse Solutions, Centreville, VA

- Spearheaded groundbreaking AWS research, pushing the boundaries of EC2 instance creation to revolutionize security and detection methodologies.
- Conducted meticulous analysis of server vulnerabilities, devising scenarios to fortify proactive defense strategies.
- Developed and implemented comprehensive unit tests utilizing Pytest to validate the functionality and reliability of our planning engine.

# Undergraduate Research Assistant (RAAIDS: AI/ML Mission Execution)

Sept 2022 - Jan 2023

Virginia Tech Hume Center, Blacksburg, VA

- Pioneered research initiatives to significantly reduce sensor operator workload while surpassing target and intelligence objectives.
- Integrated machine learning models into simulated environments for precise tracking and surveillance operations.
- Designed and rigorously tested training scenarios and sensor proxy models for optimal performance.

#### Software Development Intern

May 2022 - Aug 2022

nrgdenterprise inc., Seattle, WA

- Authored comprehensive reports on blockchain systems and cryptocurrencies for informed decision-making.
- Presented compelling data on cryptocurrency and stablecoin markets using Microsoft Office.
- Engineered financial plans and executed smart contracts for groundbreaking cryptocurrency tokens.

IT Intern Jun 2021 - Aug 2021

Novitium Pharmaceuticals, East Windsor, NJ

- Architected SonicWall firewall policies to fortify network security.
- Performed rigorous testing of network switches for seamless endpoint network access.
- Orchestrated implementation, configuration, and optimization of pharmaceutical packaging equipment.

## **EXTRA-CURRICULAR ACTIVITIES**

#### Member of UX Design Team at VT Hacks

• Collaborated with student organizations to host events within the hackathon, fostering a diverse and enriching experience for attendees.

#### Member of DSA Club

• Engaged in a series of workshops focused on data structures and algorithms, deepening understanding of core concepts and optimizing problem-solving skills.

### Member of AI/ML Club

• Employed a creative approach to problem-solving, identifying unique applications for AI/ML technologies and proposing imaginative solutions to potential problems.