

## Christopher Lesoine

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### Professional Summary

Highly skilled engineer with expertise in aerospace systems, satellite technology, and high-performance computing. Proven experience in developing secure, mission-critical systems for space and defense applications. Proficient in programming, systems engineering, and advanced simulations. Eligible for U.S. security clearance.

### Core Competencies

- Aerospace Systems Engineering: Satellite Communications, Orbital Mechanics
- Programming: Python, C++, MATLAB, Fortran, Java
- Simulation & Modeling: MATLAB/Simulink, High-Performance Computing
- Hardware Development: Embedded Systems, Microcontrollers, Sensor Integration, 3D Printing
- Secure Systems: TCP/IP, Secure Communication Protocols, System Optimization
- Project Management: Agile (Scrum), Waterfall, JIRA
- Software Development: Object-Oriented Programming, Software Architecture

### Professional Experience

#### *Technical Solutions Engineer*

Epic Systems Corporation | Oct 2024 – Jan 2025

- Designed and implemented secure, high-performance software solutions for mission-critical systems.
- Collaborated with cross-functional teams to optimize workflows and system performance.
- Applied Agile methodologies to deliver secure solutions on time and within scope.

#### *Head Engineer - Satellite Development*

College of Charleston | Aug 2023 - May 2024

- Led the development of South Carolina's first planned satellite mission, creating cost-efficient, autonomous systems for UV photometry.
- Designed satellite components in SOLIDWORKS and programmed firmware for Linux-based systems.
- Integrated secure communication and control protocols for space operations.

#### *Technical Consultant - High-Performance Computing*

Pensivision | Jun 2022 - May 2023

- Developed and optimized HPC systems for aerospace research, increasing processing efficiency.
- Conducted performance tuning and troubleshooting for secure, large-scale computing clusters.

#### *Astrophysical Researcher*

College of Charleston | Jun 2021 - Aug 2022

- Conducted simulations of X-shaped radio galaxies and intergalactic phenomena using SLURM clusters and Fortran.
- Authored research grant proposals to fund cutting-edge astrophysical studies.

#### *Research Assistant*

University of South Carolina | May 2019 - Aug 2019

- Analyzed metallicity in hydrogen-rich galaxies, applying findings to aerospace exploration technologies.
- Presented data analysis results at national conferences.

### Education

B.A. in Physics, Honors College | Minor: Mathematics

B.A. in Astronomy, Honors College | Minor: Mathematics

College of Charleston, Charleston, SC | Sep 2020 - May 2024

### **Notable Projects**

- Satellite UV Photometry System: Developed secure, autonomous systems capable of ultraviolet data collection and transmission for space missions.
- X-Shaped Galaxy Simulations: Conducted high-fidelity simulations to analyze intergalactic phenomena relevant to aerospace trajectories.

### **Awards**

- Recipient, Research Grant, College of Charleston | 2022