

Joshua Lee

U.S Citizen | 12joshuaSlee@gmail.com | (571) 491-5081
LinkedIn: linkedin.com/in/12joshuaslee | Github: github.com/12joshuaslee

PROFESSIONAL SUMMARY

Passionate 4th year computer science student at Virginia Tech aspiring to gain professional experience in the software development (full stack/backend) and AI/ML fields. Seeking to apply leadership experience and technical skills in Java, Python, and C for career-development.

EDUCATION

Virginia Tech

Bachelor of Science in Computer Science

Blacksburg, VA

Expected Graduation: May 2025

- GPA: 3.95
- College of Engineering Pratt Scholarship, Galileo Engineering Living Learning Community at VT

SKILLS

Proficiency in: Python, Java, C, PyTorch, Linux, Postman API, REST API, Sagemaker, Git, OOP

Familiar with: TensorFlow, Docker, Kubernetes, Rancher, AWS, SQL, Cloud Technologies, JavaScript, HTML, CSS, PyQt5, OpenAI Gym, Agile, Github, MATLAB, Excel

Certifications: Machine Learning Specialization

EXPERIENCE

Kratos Defense and Security Solutions

Chantilly, VA

Space Federal Product Engineering Software Intern

May 2024 - Present

- Developed a Python script using REST API endpoints and Postman API to automate demo configurations for Kratos' OpenSpace Platform.
- Utilized Docker, Kubernetes, and Rancher for efficient container management and orchestration.
- Leveraged AWS services to enhance deployment processes and support platform configuration.

Amazon Web Services & Hume Center at Virginia Tech

Blacksburg, VA

Paid Undergraduate Position - CLOUD-based Distributed Radio Frequency Spectrum Sensing

Sep 2023 - Present

- Create Convolutional Neural Networks in PyTorch to perform multi-class classification for improved RF spectrum sensing
- Use cloud services from aws (Sagemaker, S3, EC2) to load and train data used in neural networks more effectively

Computer Science Department at Virginia Tech

Blacksburg, VA

Teaching Assistant - Data Structures and Algorithms II

Jan 2024 - May 2024

- Conducted office hours for 8 hours a week to reinforce key concepts such as object-oriented design, algorithm analysis and complexity analysis
- Lead problem solving for students, and facilitate group discussions to promote collaborative learning
- Coded to demonstrate abstract and concrete implementations of data structures and to design algorithms

Rincon Research Corporation

Chantilly, VA

Software Engineering Intern

Jun 2023 - Aug 2023

- Analyzed the Ionosphere's effect on high frequency (HF) propagation through carrier recovery to provide research and knowledge of its behavior in non-polar locations
- Created a python application to sort through 200,000+ .wav files and output *Matplotlib* plots of the carrier phase and magnitude to study and understand the variance between the synthetic and received waveforms

Hume Center for National Security and Technology at Virginia Tech

Blacksburg, VA

Paid Undergraduate Position - Reinforcement Learning (RL) in Radiofrequency (RF) applications

Jan 2023 - May 2023

- Conducted research to develop a simulation environment (RFRL Gym) with *OpenAI Gym* to address two cognitive radio applications, specifically dynamic spectrum access and jamming
- Trained and tested machine learning (Q-learning/Epsilon Greedy) algorithms using *MushroomRL* to build an RL agent
- Open-sourced this codebase to allow researchers to utilize RFRL Gym, providing a platform for third-party testing of RL algorithms and ultimately contributing to the advancement of RL research

INTERESTS

Extracurriculars: Artificial Intelligence and Machine Learning Club, VT linux/unix users group, CS Careers, Snow Club Golf Club