# Jacob Rivera

1525 Stewards Way, Virginia Beach, VA 23453 | +1 (757) 762-0559 | janjacobrivera@gmail.com
linkedin.com/in/jacobrivera1 | https://sites.wp.odu.edu/jjcybersec/

## EDUCATION

**Old Dominion University** **Norfolk, Virginia**
Cybersecurity B.S. Major, Computer Science Minor | GPA: 3.67 / 4.0 *Expected 05/2027*
Dean's List: Fall 2023 - Spring 2026
Relevant Coursework: Basic Cybersecurity Programming and Networking, Cybersecurity Techniques and Operations, Cybercriminology: Foundations, Cybersecurity Ethics, Linux System for Cybersecurity, Windows System Management and Security

## TECHNICAL SKILLS

**Programming Languages:** Python, Java
**Tools & Technologies:** Wireshark, Nmap / Zenmap, Kali Linux, TLS/SSL, TCP/IP, paho-mqtt
**Operating Systems:** Linux (Kali, Ubuntu), Windows
**Certifications:** CompTIA Security+ (in progress, est. 10/2026)

## EXPERIENCES

**Cybersecurity Extern** **Remote**
*Extern, INC. & Hydroficient LLC* *03/2026 - 05/2026*
- Built an MQTT-based IoT pipeline in Python with five security layers: TLS, mTLS, HMAC-SHA256 signing, timestamp freshness, and sequence validation
- Simulated eavesdropping, injection, and replay attacks, with all injection and replay attempts rejected
- Built a real-time threat dashboard (HTML, CSS, JavaScript, WebSocket) and presented findings to industry partners

**Cyber Sprint Participant** **Norfolk, Virginia**
*Commonwealth Cyber Initiative (CCI) & CACI* *04/2026*
- Collaborated in a team of 5 to solve industry-provided cybersecurity challenges during a two-day, hackathon-style sprint
- Applied the CPS (Critical Problem Solving) framework to develop a phishing mitigation solution and presented it to event organizers

**Cashier/Line Cook** **Virginia Beach, VA**
*Casual Eats LLC* *08/2022 - Present*
- Delivered outstanding customer service handling 50-100+ transactions per day across cash, credit, and mobile payments
- Trained 4 new employees on company procedures and customer service expectations, getting each up to speed in two shifts
- Collaborated with both front and back ends to maintain efficiency during peak hours

## PROJECTS

**SOC Automation Homelab** *07/2026 – 08/2026*
- Built a 3-VM SOC lab on VMware Workstation, simulating end-to-end detection and response for brute force authentication attacks
- Automated Tier 1 alert handling with emerging technologies, such as n8n and OpenAI GPT, generating severity assessments for each detected alert
- Mapped brute force activity to MITRE ATT&CK tactics and techniques and triaged 20+ simulated alerts, practicing the investigative workflow of a Tier 1 SOC analyst

**Socket Programming** | Python *09/2024 – 11/2024*
- Built a client-server application in Python using the socket library, where the client requests a planet and the serve returns facts from a text-file database
- Implemented a custom character-shift cipher to encrypt and decrypt stored user passwords
- Designed user authentication with account creation and login to validate each client connection

## LEADERSHIP & ORGANIZATIONS

**Team Leader |** Anchored4Life, Landstown High School, Virginia Beach, VA *08/2022 - 06/2023*
- Connected with transitioning military students to make them feel welcomed and supported in their new school
- Advised students facing academic and personal challenges, communicating one-on-one to connect them with support and resources
- Facilitated "Real Talk" sessions to motivate and encourage students

**Memberships**: Cyber Security Student Association (CS2A), Vietnamese Student Association (VSA) — Old Dominion University

## ADDITIONAL INFORMATION

**Citizenship:** U.S. Citizen – eligible to obtain security clearance
**Job-Related Training:** IoT Security Pipeline (Hydroficient Externship, 05/2026); CCI/CACI Cybersecurity Sprint (04/2026)