

# Wilondja Jacob

757-303-4225 | [wilondja.jacob28@gmail.com](mailto:wilondja.jacob28@gmail.com) | [linkedin.com/in/wjacobap](https://www.linkedin.com/in/wjacobap) | [github.com/ransomwarehunter](https://github.com/ransomwarehunter)

## EDUCATION

---

**Old Dominion University** — GPA: 3.71

*Bachelor of Science in Cybersecurity*

Norfolk, VA

Sept. 2021 – Dec. 2025

**Master's Fast-Track Graduate Courses:** Artificial Intelligence, Cybersecurity Risk Management

## RESEARCH EXPERIENCE

---

**Perry Honors College Undergraduate Research Program — Research Scholar**

Summer 2025

*Old Dominion University*

*Remote*

- **Research keywords:** ransomware detection; hybrid static-dynamic analysis; CNN; BiLSTM; Random Forest; small-business cybersecurity
- Conducted structured undergraduate cybersecurity research under faculty mentorship.
- Wrote a proposal, executed research tasks, and prepared deliverables for the Undergraduate Research & Creativity program.
- Built advanced research and communication skills through symposium and report preparation.

**ExLENT Mechatronics and Robotics — REU**

Jan. 2025 – Jun. 2025

*Michigan Technological University, NSF*

*Houghton, MI*

- Completed multi-phase training in robotics, electrical, mechanical, PLC/controls, cybersecurity, and AI labs.
- Gained hands-on exposure to IoT and embedded systems cybersecurity in state-of-the-art facilities.
- Engaged with leading industry partners to see real-world mechatronics applications.

**Research Scholar – REU**

Summer 2025

*Purdue University, NSF*

*Indianapolis, IN*

- **Research keywords:** mobile/cloud security; data privacy; secure mobile computing; cloud data protection; malware analysis; threat modeling; adversarial AI; penetration testing; vulnerability assessment.
- Researched mobile cloud security, data privacy, and secure mobile computing in competitive testbed environments.
- Co-authored, *MalFusion: A Hybrid Approach to Ransomware Detection*, IEEE MASS 2025, pp. 670–675. DOI: 10.1109/MASS66014.2025.00109.
- Explored malware analysis, threat modeling, and adversarial AI techniques relevant to mobile/cloud ecosystems.

**Research Scholar – REU**

Summer 2024

*University of Missouri–Kansas City, NSF*

*Kansas City, MO*

- **Research keywords:** Generative AI; Large Language Models (LLMs); Graph Neural Networks (GNNs); intrusion detection; phishing detection; code vulnerability analysis; authentication systems; AI-empowered cybersecurity.
- Investigated Generative AI, Large Language Models (LLMs), and Graph Neural Networks (GNNs) for cybersecurity.
- Prototyped methods for intrusion detection, advanced phishing detection, and code vulnerability analysis.
- Mentored GenCyber camp students through panels and presentations to transfer research insights to K-12 audiences.

## PROFESSIONAL EXPERIENCE

---

### **Program Assistant**

Sep. 2024 – May 2025

*ODU Brooks Crossing Innovation Lab*

*Newport News, VA*

- Designed and taught hands-on makerspace sessions for K-12 students; assisted with events and community programs.
- Operated iLab equipment (laser cutters, 3D printers, vinyl cutters, CNC, UV/DTG printers) and created training content.
- Developed new activities using existing equipment and materials to broaden community engagement.

### **COVA CCI Cybersecurity Undergraduate Research Program— Cybersecurity Consultant** Spring 2025

*Old Dominion University*

*Norfolk, VA*

- Delivered cybersecurity awareness, risk assessments, and consulting to microbusinesses and public agencies.
- Contributed to client deliverables on network defense, policies and procedures, and best practices training.
- Worked on a multidisciplinary team under faculty supervision to improve client cyber posture.

## PUBLICATIONS & PRESENTATIONS

---

### **Papers**

- *MalFusion: A Hybrid Approach to Ransomware Detection*, IEEE MASS 2025, pp. 670–675. DOI: 10.1109/MASS66014.2025.00109.

### **Presentations**

- Research presentations and panels for K-12 GenCyber audiences (UMKC REU), focusing on AI-driven cybersecurity.

## AWARDS

---

### **Dean's List: Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024.**

- Recognizes high academic achievement each semester.

### **Academic Honors Scholarship, Old Dominion University**

Fall 2025 – Spring 2026

- Merit-based scholarship awarded for academic excellence.

### **Monarch Scholarship, Old Dominion University**

Fall 2021 – Spring 2025

- Four-year competitive merit scholarship for outstanding undergraduates.

### **Perry Honors College Undergraduate Research Scholarship, Old Dominion University**

Spring 2025

- Competitive grant supporting undergraduate research and creative activity.

## PROJECTS

---

### **MalFusion — Hybrid Ransomware Detection**

Spring 2025

- Tech: Python; PyTorch & scikit-learn; Ghidra (opcode extraction); Cuckoo Sandbox (VirtualBox Windows 7 VM); NumPy/Pandas; Matplotlib; Google Colab (T4 GPU).
- Hybrid static + dynamic malware analysis pipeline integrating Cuckoo Sandbox logs and learning models.
- Evaluated detection using classical ML and deep learning; prepared manuscript accepted for IEEE venue.

### **CyberFusion — AI-Driven Ransomware Defense**

Fall 2024

- Tech: Python; scikit-learn & PyTorch; Cuckoo Sandbox (API-call logs); Ghidra; Jupyter/Colab; Matplotlib; VirtualBox Windows 7 analysis VM. Designed features for a customizable learning experience, and implemented user-interface
- Hybrid pipeline combining a Random Forest static trigger on PE metadata with selective sandboxed dynamic analysis modeled with BiLSTM; optional CNN+BiLSTM fusion for robustness.
- Developed through the Perry Honors College Undergraduate Research Program; emphasized small-business deployability, efficiency, and explainability; results ~99.97% static trigger accuracy and ~99.5% hybrid accuracy.

## **Recronic — E-commerce Business**

2022-2023

- Tech: WordPress (WooCommerce); theme customization; plugin-based inventory, shipping, and SEO; basic analytics.
- Founded and managed an e-commerce business specializing in electronic products.
- Conducted extensive research on competitors, suppliers, and target audiences to inform business decisions and marketing strategies.
- Cultivated skills in marketing, customer service, inventory management, and financial tracking through hands-on experience.

## **LEADERSHIP & SERVICE**

---

### **GenCyber Mentor**

Aug 2024

*University of Missouri–Kansas City - REU*

*Kansas, MO*

- Supported panels and outreach to introduce cybersecurity and AI concepts to high school students.
- Presented research insights and answered questions during camp sessions.

### **Cybersecurity Outreach**

Feb. 2025

*ODU Brooks Crossing Innovation Lab, ODU Cybersecurity Clinic*

*Norfolk, VA*

- Delivered workshops and educational activities for community members on cybersecurity awareness.
- Assisted with event coordination and hands-on K–12 activities.

### **Senior Digital Literacy Volunteer**

Feb. 2025

*Warwick Forest*

*Newport News, VA*

- Taught seniors to use cell phones, set up and use email, send messages, and recognize phishing and scams.

### **Cybersecurity Recruitment Event Facilitator**

March 2025

*Old Dominion University*

*Norfolk, VA*

- Co-facilitated a 45-minute phishing simulation for 11th–12th graders using Google’s Phishing Quiz and an interactive slide deck to teach phishing recognition and reporting.