

Jackson Keus

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EDUCATION

San Diego State University

Aug 2021 - May 2025

B.S. in Computer Science, GPA: 3.50, Relevant Coursework: Operating Systems, Algorithms, Linux/Unix Administration, Systems Programming, Blockchain, Cyber Security, Robotics, and Game Development

JOB EXPERIENCE

San Diego State University – Computer Security Course Teaching Assistant

Feb 2024 - Present

- Demonstrated SEED Labs exercises for students covering operating system exploits on Ubuntu, including setuid attacks, environment variable exploitation, and buffer overflow attacks, using scripts written in C
- Deployed a Wazuh Manager node alongside Suricata on an Ubuntu firewall to serve as an Intrusion Detection System and to collect and monitor logs from endpoint agents and network traffic for an attack lab scenario
- Provided assistance with course material for 50+ students and graded exams with 10+ free-response questions

Northrop Grumman – Software Engineering Intern

May 2024 - July 2024

- Co-Led the development of a prototype interface for Northrop Grumman's Battlefield Airborne Communications Node using Angular, Bootstrap, RxJS, NgRx, PrimeNg, HTML/CSS, and TypeScript
- Improved site continuity and responsiveness by integrating NgRx for state management with API updates, effectively optimizing state handling and data synchronization
- Collaborated with the software team using Figma to create user-friendly UI components, which were successfully implemented into the application in an Agile environment
- Addressed component redundancies by utilizing Angular's template-driven and iterative design methods, which led to improved code quality, greater reusability, and enhanced website performance

Northrop Grumman – College Technical Intern

May 2023 - July 2023

- Designed and implemented scripts in Python to optimize data movement with pypathlib, MD5 checksum verification, and regex pattern finding, resulting in an estimated time savings of 5-8 hours per week
- Utilized Pandas and Numpy for data analysis, calculations, and metrics of flight data, improving flight log analysis
- Leveraged Matplotlib, Numpy, and Pandas to create a program that produced dynamic visualizations of data and metrics for flights in an all-in-one excel file for on-site engineers to better evaluate flight tests

LEADERSHIP/RESEARCH EXPERIENCE

San Diego State Cyber Defense Team – Jobs and Competition Officer

May 2024 - Present

- Ranked 121st out of 4,680 teams in the NCL 2023 Fall team competition and achieved a top 14% ranking in the individual competition, with a focus on network analysis using Wireshark, hash cracking with Hashcat, and OSINT
- Organizing team practices for 40+ members and interfacing with competition organizers

AI4BusinessLab Medical Q&A Large Language Model Project – Student Researcher

Aug 2024 - Present

- Assisting in the development of a research matrix to organize and analyze data for an upcoming paper
- Building and testing systems for the model with Python, and exploring new techniques to improve its performance

PROJECTS

Web3 Mystery Marketplace – JavaScript, Solidity, Python, Apache, Geth

- Developed a local Ethereum-based marketplace using Geth and Python scripts, integrated with an Apache service to make the blockchain accessible through a web interface
- The website allows users to interact with a smart contract to publish listings, buy NFTs, and view current listings

Simon Says Alarm Clock – Raspberry Pi Pico, MicroPython, Bread-boarding, Thonny

- Constructed a customized alarm clock utilizing a Raspberry Pi Pico microcontroller, programmed in MicroPython, to feature a unique Simon Says game mechanism for alarm deactivation

Shakespeare Text Generator – Python, Numpy, TensorFlow

- Trained a neural network with a Long Short-Term Memory approach, which produces new Shakespeare-like texts

TECHNICAL SKILLS

Languages: Python, C++, TypeScript, C, JavaScript, HTML/CSS

Developer Tools: Pandas, Matplotlib, Numpy, Angular, RxJS, VMware, Wireshark, NgRx, Web3, Figma, Git