Jackson Keus

(619) 519-6187 — linkedin.com/in/j-keus — jkeus6819@sdsu.edu — github.com/jkeus

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 to students on operating system exploits in Linux/Unix based systems
- Wrote exploit code in C for class labs, covering environment variable, setuid, and buffer overflow attacks
- Implemented a Wazuh Intrusion Detection System (IDS) instance for real-time threat detection
- Configured said IDS with Suricata for network logging and Wazuh's endpoint agent monitoring for threat analysis
- 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
- Led the development of a prototype interface for Northrop Grumman's Battlefield Airborne Communications Node
- Developed using Angular, TypeScript, and PrimeNG for the front end, and Python with Flask for the back end
- Achieved a 50% reduction in component rendering time by implementing NgRx for state management
- Designed user-friendly pages in Figma which were successfully implemented in an Agile environment
- Eliminated component redundancies using Angular's template design, enhancing code quality and performance
- Created a custom routing interface, utilizing RxJS and NgRx to synchronize data from real-time RESTful APIs

Northrop Grumman - *Software Engineering Intern*   May 2023 - July 2023
- Saved staff 5-8 hours per week by developing Python scripts for large data transfers using regex and hash sums
- Designed a software tool for on-site engineers to produce comprehensive excel files and generate graphs
- Conducted data analysis with Python/Pandas on flight data improving flight log analysis for engineers
- Leveraged Matplotlib to create a program that produced dynamic visualizations of data and metrics for flights

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
- Performing data sanitization with Python scripts on medical papers to use as training data for a LLM
- Assisting in the development of a research paper, collecting other AI/ML research papers and writing rough drafts

PROJECTS

Web3 Mystery Marketplace - *JavaScript, Solidity, Python, Apache, Geth*
- Developed Ethereum-based web marketplace using Geth and Python scripts, integrated with an Apache web server
- Wrote a web contract in solidity that allowed users to publish listings, buy NFTs, and view current listings

Simon Says Alarm Clock - *Raspberry Pi Pico, MicroPython, Bread-boarding, Thonny*
- Utilized a Raspberry Pi Pico Microcontroller with MicroPython to create an alarm clock with custom features

Shakespeare Text Generator - *Python, Numpy, TensorFlow*
- Trained a neural network with a Long Short-Term Memory approach, which produces new Shakespeare-like texts

Virtual Enterprise Network - *Linux/Unix OS, VMware, Dovecot, LDAP*
- Emulated a business network with Dovecot email server, local certificate authority, and LDAP user management

Personal Portfolio Website - *React, Javascript, Bootstrap*
- Portfolio website written in React and features, responsive components, light/dark theme, and projects

TECHNICAL SKILLS

Languages: Python, TypeScript, C++, C, JavaScript, HTML/CSS
Developer Tools: Pandas, MatPlotLib, Numpy, Angular, RxJS, VMWare, Wireshark, NgRx, Web3, Figma, Git