JACOB M. SHODD

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EDUCATION

Westminster College *Aug. 2013 - May 2017*
Bachelor's of Science in Computer Information Systems

WORK EXPERIENCE

Operations Engineer *May 2017 - Current*
M*Modal

· Created an internal web application using Golang to act as a reporting and alerting portal
· Implemented a Prometheus monitoring framework in Kubernetes clusters across several data centers
· Wrote, maintained, and utilized Python scripts to automate tasks and process data
· Deployed production code with Kubernetes and performed profile data migrations between databases

IT Intern *Aug. 2016 - Mar. 2017*
Treloar and Heisel

· Performed a security assessment and discovered three critical operational vulnerabilities
· Reduced time required to run monthly financial reports by 97% using a scripting framework
· Wrote Python scripts to automate multiple administrative and tedious tasks

IT Intern *May 2016 - Aug. 2016*
Thales Transport and Security

· Wrote a Powershell script to automate common Active Directory tasks
· Designed a diagram of the server room including all connection paths in Visio
· Handled all incoming help request tickets for an office of 90 employees

PROJECTS

Sigma Swiper *http://jacobshodd.com/project/sigmaSwiper/*
Python

· Wrote an application to log guest entry by swiping student ID cards while checking against a guest list
· Built a custom touch screen raspberry pi kiosk for the program to run on, utilizing QT for the user interface
· Worked with student organizations to implement the system in their risk management processes

Penetration Test
Senior Capstone

· Used tools like Nmap, Hydra, and Ettercap to test areas such as VNC, LDAP, and user password strength
· Wrote a custom python script using Scapy to capture VNC packets and display all of a target's keystrokes

Trinity Robot *https://github.com/jshodd/trinityRobot*
C++ and Arduino

· Programmed a three wheeled omnidirectional robot to autonomously navigate a maze to find and put out a candle

GoChat *http://jacobshodd.com/project/goChat/*
Golang

· Developed a client and server TCP chat application that utilizes concurrency, JSON, and AES encryption

Home Lab
Linux, Proxmox, and Pfsense

· Created a virtual Linux network using Proxmox and Pfsense in order to practice with networking and security tools

SKILLS

Programming Languages	Python, Golang, C++, Java, SQL, Bash
Software & Tools	Kubernetes, Docker, Virtual Box, Linux, Git, PostgreSQL