# **Collin Kenneth Kleest**

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#### **EDUCATION**

The Pennsylvania State University, University Park, PA College of Information Sciences and Technology Schreyer Honors College

June 2018 - December 2021

- Bachelor Science in Information Science and Technology, Design and Development Option
  - o **Minor:** Security & Risk Analysis
  - o Overall GPA: 3.87 | Major GPA: 4.0

## **Honors Work**

- Java Generics Application, and multiple sorting implementations for Dr. Fredrick Fonseca
- Socks Proxy Lab creation for Professor David Hozza, CISSP
- Web Component Development with Professor Bryan Olyendyke
- Thesis Research (In Progress) with Marc Friedenberg J.D. M.S.

Dean's List: FA18, SP19, FA19

**Scholarships:** Richard C. Assetto, Robert and Tammy Morgan Trustee, and Hendrickson Family Trustee Scholarship **Major Related Course Work:** Python Algorithms, Databases & SQL, Networking, Leadership in Technology, Java Object Oriented Programming, Information Security, Discrete Mathematics, Object Oriented Design

#### **WORK EXPERIENCE**

# Rajant Corporation, Systems Engineer Intern

May 2019 - August 2019

Rajant is a defense contractor that produces networking technology that enables secure, real-time communication.

- Established an API Gateway to provide centralized authentication for API's and 115 employees.
- Engineered a power monitoring system, that utilizes Python on a Raspberry Pi.
- Analyzed a corporate network of 10-15 servers, two VPN connections, and multiple Virtual LAN's.

#### College of Information Science & Technology

**Learning Assistant Coordinator for Intermediate Java Courses** 

January 2020 - Present

Managing ten learning assistants, facilitating communications to tutors, and conducting interviews.

Java Learning Assistant

January 2020 - Present

Teaching fundamental Java object oriented concepts, assisting instructor with lectures, grading, and course
materials. Class with *Professor Shawn Smith*, Penn States Director of Software Engineering

Instruction Assistant, Lead Teaching Assistant

January 2019 - May 2020

• Managing two new learning assistants and creating new course content for *Dr. Edward Glantz*.

## **LEADERSHIP**

# President and Co-Founder of Emerging Technology Club

September 2019 - Present

EMTech is a club that presents demos based on the Raspberry Pi and teaches students about emerging technologies.

- Creating advanced Linux labs, collaborating with an executive team to organize and plan meetings.
- Developing engaging labs that connect hardware and software together with a Raspberry Pi

# **VOLUNTEER WORK**

#### **CB** Transportation

July 2019 - Present

Aided in configuring Alien Vault defensive security system for detecting security vulnerabilities.

#### Penn State Ski Team,

Sept 2018 - Present

Fundraised for THON and team funding. College club level competitions five times a year.

#### **PROJECTS**

**Linux Web & File Server** 

Kong API Gateway (Kong, Konga, Postgres SQL)

Personal Portfolio (HTML, CSS, JS, Bootstrap, Sass, Web Components)

Raspberry Pi Power Monitor (Python)

**Github CLI Automation Program (Python)** 

#### **SKILLS AND TOOLS**

#### **Hard Skills:**

- Languages: Python (Advanced), Java (Intermediate), HTML/CSS/JavaScript (Intermediate), SASS (Intermediate), SQL(Novice), Shell Script(Novice)
- Operating Systems: Fedora (RedHat), Ubuntu & Raspbian(Debian), Windows 7/8/10, Mac OS
- Tools: Docker, Git (Github & Gitlabs), Kubernetes, Virtual Box, MongoDB, Postman, Various IDE's; VS Code, Netbeans, Vim
- Concepts: MVC Java Development, Data Structures & Algorithms, Information Security, OOP Design Soft Skills:
- Leadership, Communication, Time Management, Adaptability, Teamwork, Decision Making, Persistence **Certifications:** Certified Wireless Analyst (CWA), Certified IP Telecom Network Specialist

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# **Projects**

# **Linux Home Server**

Fedora Server, NGINX Web Server, OwnCloud File Storage

- Utilized Red Hat's Operating System, specifically Fedora 30 Server Edition
- Assembled a PC from scratch
- Configuration of FirewallD to allow and block specific traffic
- Deployed NGINX Web Server to host my own website.
  - o Site Written in HTML/JavaScript/CSS
- Utilized Let's Encrypt SSL, to configure HTTPS.
- Configured a dynamic IP address tracker to avoid ISP's changing my IP address
- Installed and configured PHP and MySQL for OwnCloud server
- https://github.com/collinkleest/Multi-Use-Home-Server-Project

# Kong API Gateway

Open Source API Gateway built on top of NGINX and written in Lua, used to authenticate users with APIs

- Researched a powerful open source solution.
- Evaluated microservices and web services to put behind the API gateway.
- Examined compatibility with servers and APIs
- Modified python and bash scripts, to allow requests to go through the API gateway.
- Documented installation of API gateway on CentOS, Fedora, & Docker.
- Formulated bash scripts to automatically install the gateway.
- Developed python program to automatically add users.
- Simulated testing environment with docker containers.
- https://github.com/collinkleest/Kong-API-Gateway

### **Personal Portfolio Website**

My own personal portfolio, built from scratch with HTML/CSS/JS, Sass, Bootstrap and Web Components.

- Learned HTML, CSS and JavaScript, Bootstap and Sass to build an accessible, elegant portfolio
  - Site is mobile compatible, meaning the site is responsive when going from desktop to tablet to a mobile phone.
- Site is completely based around static content, includes multiple pages; home, about, projects, resume, and a contact page.
- Hosted at: https://collinkleest.com
- Source code on Github: https://github.com/collinkleest/portfolio

## **Raspberry Pi Power Monitor**

Python scripts running on a Raspberry Pi that detect power outages and send SMS messages.

- Collaborated with an intern to figure out the specific requirements for the power monitor
  - Planned and discussed how scripts would call each other and how implementation would be executed
- Developed python program utilizing email to SMS gateways
  - Python script sends out a text message notification when the power goes out and when it is turned back on
- Utilized Python multithreading to check multiple GPIO pin states at once
- Aided in development of a program that checks for water level detection
- https://github.com/collinkleest/Raspberry-Pi-Power-Monitor

#### **Github Command Line Automation Tool**

Command line tool written in Python to automate Git commands, and Github requests.

• Tool utilizes the Github API to make HTTP requests to gather information or manipulate account information, create repositories and delete repositories.