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# **Arun Kumar Hari Pranav**

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Portfolio: <a href="https://akhp.dev">https://akhp.dev</a>

#### **E**DUCATION

#### Pennsylvania, PA

#### **Penn State University**

Aug. 2022 - Present

- M.S. in Computer and Information Systems Security. GPA: N/A
- Graduate Coursework: Network security | Web Application Security | Foundations of Software Security
- Undergraduate in Information Science & Engineering (CMRIT India). GPA: 3.49/4
- Coursework: Cryptography | Network Security | Data Structures | Design of Algorithms | Software Engineering

#### **E**MPLOYMENT

### **Analyst, Cloud Security**

#### **Ernst & Young LLP**

Aug. 2021 - Aug. 2022

- Performed Risk assessment, including threat modeling, which improved overall security posture for the client.
- Integrated cloud security logs with Securonix SIEM for management and assessment of threats and ticketing.
- Evaluation of NIST framework and CIS controls resulting in compliance for Big Data Security.
- Implemented custom DevSecOps pipeline for Apache Superset on Elastic Kubernetes Service improving dynamic scalability and application security for 3600 users.

#### **Security Analyst, Intern**

## **Gautam Buddha Nagar Police**

Sep. 2020 - Nov. 2020

- Analysis and reporting of vulnerabilities in government websites reducing overall risk.
- Developed rules and SOP's for firewalls improving detection and protection capabilities.
- Investigated and resolved tickets submitted by users and improved performance of the website.

## TECHNICAL EXPERIENCE

### **Projects**

- Cloud Agnostic Security Operations Center: Developed a Cloud Agnostic containerized solution for threat detection and modeling using Suricata Intrusion Detection System reducing cost by 60%.
- Integrated tools like ElasticSearch, Logstash, Kibana for log ingestion, visualization and alerts which have been open sourced.
- Framework for Identification of Personally Identification Information: A framework which can help detect and prevent exposure of PII data on the cloud. This framework reduced the serveless cost by 40%.
- Capabilities include editable data frames with connectors to AWS and SQL and a front end for easy manipulation and encryption of data.
- DevOps Pipeline: Deployed Flask application using Infrastructure as Code reducing time to production by 50%.

## RESEARCH

- Blockchain As a Service (BaaS) Framework for Government Funded Projects
- This paper proposes a solution using Blockchain as a Service for easy and transparent administration of public projects which allows various stakeholders to scrutinize the entire process.
- IoT and Machine Learning based Peer to Peer Platform for Crop Growth Monitoring
- This paper proposes a decentralized platform for buying and selling of agricultural produce, by connecting
  farmers with individuals interested in investing in their fields with the continuous monitoring of health and
  real time analytics.

#### LANGUAGES TECHNOLOGIES AND AWARDS

- Languages, Frameworks: Python, Docker, Elastic Kubernetes Service, Dart, Javascript, Flask, Flutter.
- OS and Tools: Linux, Windows, Mac, Github, Security Hub, Quicksight, Apache Superset, Apache Airflow.
- Awards: Microsoft Hack 2020 (Second Place), Dora Hacks 2019 (First Place), Hedera Hacks 2019 (Third Place).