# **AMITH SAHANI**

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# Summary

I am a self-motivated, results-driven student eager to implement technology to solve real-world problems. Having a strong ability to learn and adapt to new technologies, I like to build innovative and creative solutions, applying my expertise in the fields of Big Data, Generative AI, Web development, and Data Science. I proactively participate in research, hackathons and collaborative projects to gain real-life exposure to complex practical challenges.

# Education

# **PES University**

B.Tech in Computer Science Engineering (CSE) - CGPA: 8/10.0

## Narayana PU College

Class 12 CBSE - Percentage - 86%

#### Narayana e-Techno School

Class 10 CBSE - Percentage - 87%

Bengaluru, Karnataka Nov 2022 - Present Bengaluru, Karnataka Aug 2020 - July 2022 Bengaluru, Karnataka May 2020

June 2024 – Aug 2024

Bengaluru, Karnataka

# Experience

# **Center for Computer Networks and Cybersecurity**

Summer Intern (Research) - PES University

• Data Analysis, DNNs.

• Two Months of Research experience related to the application of Deep Neural Networks and Machine Learning

# **Projects**

## Twilight: A Fast and Responsive Music Streaming Platform | Mern, Firebase, JS, React, HTML, CSS

- Develop a robust and responsive music streaming platform
- That offers users a seamless and enjoyable music listening experience while leveraging the power of the MERN stack and Postman.

# Argus- An Effective Distributed Logging System | Apache Kafka, Kibana, Python, Fluentd

- Engineered a comprehensive distributed logging system for microservices that features log collection.
- · A Kibana analytics dashboard for data visualization, and an integrated alerting and monitoring system.
- The architecture efficiently manages log data flow across distributed services.

techniques in Cybersecurity and Predictive Maintenance for Industrial IoTs

• Enabling real-time monitoring and proactive system maintenance.

#### **IoT Weather Station** | RaspBerry Pi4, OpenWeather API, HTML, Integrated Sensors

- · A Web Application integrated with Raspberry Pi4 is a smart environmental monitoring system designed to collect, analyze, and transmit real-time weather data using Internet of Things (IoT) technology.
- Equipped with sensors such as DHT11/DHT22 (for temperature and humidity), BMP180 (for barometric pressure), and rain/light sensors, the system continuously monitors local weather conditions.
- · Collected data is transmitted to a cloud platform (ThinkSpeak) allowing remote access and visualization through dashboards or mobile/web apps.

## **TwikTk: Twitter Client with GUI** | Python, Tweepy, Tkinter, Textblob

- Fetch any user profile data like bio, followers, friends. etc.
- Fetch Trending topics around the world and of a specific place.
- Scrape Tweets related to a particular topic from specific date and time.
- Looks for anomalies, patterns and correlation among millions of records to predict results.

**IoTShield: Anomaly Detection and Adaptive Response for Industrial IoT** | *Python, AutoEncoders, Integrated sensors, Contiki, Cooja Simulator* 

- Designed and implemented an anomaly-based intrusion detection system tailored for Industrial IoT (IIoT) environments using Digital DNA signatures and Autoencoder-based models.
- adaptive response mechanism that autonomously detects, classifies, and mitigates threats in real time, including DDoS, data exfiltration, and lateral movement attacks.
- Preprocessed and engineered features from the Edge-IIoTset dataset using EDA, class balancing, outlier removal, and dimensionality reduction (LDA).
- Trained device-specific deep autoencoders to capture baseline "normal" behavior and detect deviations based on reconstruction error.

## **Technical Skills**

**Programming Languages**: Java, Python, C/C++, SQL, JavaScript, HTML, CSS, Go

**Frameworks/Tools**: Git, GitHub, Next.js, Mongo DB, Express.js, React, Node.js, Apache Kafka, Hadoop, Apache Spark, Redis, Docker, Kubernetes, Figma, Canva

**Core Skills**: Big Data, Database Management (Relational Databases), Web Development, Version Control, Cloud Technologies, Artificial Intelligence, Generative AI, Operating Systems, Computer Networks, Problem Solving, Data Structures and Algorithms, Prompt Engineering, Agile Software Development, Data Analytics, Software Engineering (DevOps, CI/CD), Object Oriented Analysis and Design, MERN Stack Development, Neural Networks, Data Science.

# **Soft Skills**

Verbally Articulate, Team Collaboration, Presentation and Communication Skills, Leadership and Decision Making, Technological Adaptability, Problem Solving Ability, Continuous Learning, Attention to Detail and Critical Thinking

Photography, Digital Design, Event Management

# Certificates

May 2025
Nov 2024
Jan 2025
Jan-May 2023

#### Awards and Extra Curricular

## **Distinction Award** | *PES University*

• Awarded for academic performance and securing SGPA of 7.75 and above- Awarded 4 times (Semesters)

## **Head Boy** | *Narayana e-Techno School*

- Elected as the head boy to manage various operations and events on campus.
- Responsible for the student body of around 2000 students from class 1 to 10.

## Marketing Team, Equinox PES ECC | PES University

• Member of the marketing team, responsible for marketing events in and outside the college.