ARYAN JAIN

EDUCATION

Purdue University

West Lafayette, IN

Bachelor of Science in Computer Science

GPA: 3.97; December 2024

Relevant Coursework: Computer Networks, Software Testing, Computer Security, Operating Systems, Analysis of Algorithms, Cryptography, Information Systems, Systems Programming, Data Structures and Algorithms, Computer Architecture Teaching Assistantships: CS 251 - Data Structures and Algorithms, CS 252 - Systems Programming

Scholarships: Boeing 2024, Qualcomm 2023, Purdue CS 2022

TECHNICAL SKILLS

Languages: Python, C, Java, C++, SQL, MongoDB, Cypher Query, ARM Assembly, Arduino, HTML, CSS, R

Developer Tools: Docker, Bash Script, Git, Unix, Linux, GCP, Agile Methodology, Flask

WORK EXPERIENCE

Cyber Security Intern

Jun 2024 – Jul 2024

Gurugram Police Department | Python, Steganography, RSA

Gurugram, India

- Led development of an OSINT framework in a Telegram Bot using Selenium and Beautiful Soup, integrating 10+ data sources, utilizing techniques like Google Dorking for potential threat profiling within 10 secs.
- Architectured a secure evidence transfer system leveraging modern steganographic and encryption techniques (RSA, LSB, ZWC) to protect digital evidence, ensuring safe transmission and user-friendly interfaces for law enforcement.
- Constructed a desktop application to process over 20,000 IP addresses from IPDR files, conducting reverse DNS lookups and generating CSV reports using Python's Tkinter library and concurrent processing.

Software Engineer Intern

May 2024 - Jun 2024

HCL Technologies | C++, MongoDB, Docker

Remote, India

- Developed a C++ service using Curlcpp to retrieve real-time financial market data for major cryptocurrencies, enhancing data retrieval efficiency by 30%.
- Engineered a Docker-based deployment for MongoDB and Mongo Express, reducing setup time by 50% and enabling seamless data querying through a web admin interface.

Software Engineer (Research Focus) Intern

Aug 2022 - Feb 2024

Rosen Center for Advanced Computing | Python, Benchmarking, Linux, Bash Scripts

West Lafayette, IN, USA

- Implemented a novel framework using Microsoft Presidio and Python to automate the identification and anonymization of large system logs of 10,000+ lines under the mentorship of Dr. Amiya Maji.
- Performed different types of benchmarking using SLURM for High-Performance Linpack (HPL) and Stream and documented a guide on HPL benchmark usage.

Software Developer

Aug 2022 - Dec 2022

Webee (Data Mine Learning Community) | Python, MongoDB, Pandas, CSV

West Lafayette, IN, USA

- Collaborated with 10+ students to devise high-resolution beacon-based software for indoor asset tracking.
- Analysed and parsed 50+ GB datasets using Python CSV and performed triangulation and trilateration on the analyzed data for pinpointing locations of assets.

Security Researcher

May 2022 - Aug 2022

Summer Undergraduate Research Fellowship | Python, Fuzzing, Unix, C, C++

West Lafayette, IN, USA

- Created bash scripts and 5+ GitHub workflows to test a novel framework using AFL, uncovering security weaknesses in 80% of student programming submissions under the guidance of Prof. Aravind Machiry.
- Updated YAML files for testing and documented 5+ guides on the framework's functionality.

PROJECTS

Boilermaker Airlines | Java, Dijkstra's Algorithm, Kruskal's Algorithm

Dec 2022

• Developed a program to determine most efficient flight route for departure and arrival among 100+ different airports and regions.

Stock Market Simulator | Python, HTML, CSS, Flask

May 2020 - Aug 2020

- Designed and developed a free web application to simulate trading for beginners to gain experience without money.
- Programmed 5+ features including personal portfolio, news, stock market data, and personalized stock tracker.