RAHUL SETH

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EDUCATION

Trinity College, Dublin

BAI Computers and Electronics Engineering

2018 - 2022

Ireland

Dissertation: "Surveying Long-Term Cryptographic Keys in Ireland" | GitHub

- Developed network scanner to identify and survey mail servers in Ireland, extracting and processing cryptographic data.
- Modelled and modelled public key sharing for 20000 servers across all standard ports by clustering on SHA-256 fingerprint

WORK EXPERIENCE

Baker Hughes Ireland

Software Engineer

Mar'23 - Present

- Spearheaded design and development of an enhanced UI/UX for a legacy oxygen sensor, leading to the modernization of the product.
- Developed a feature-rich LCD interface with user-friendly navigation and optimized code architecture in C, improving UX.
- Initiated the implementation of CI/CD with Parasoft on GitHub, automating code analysis and significantly reducing rework by 29%.
- Enhanced system functionality and user interaction by integrating the bootloader and linking Data Manager with HMI.
- Established standardized design practices with other engineers, developing a globally accessible Python-based icon library to unify visual elements across products.

Graduate Software Engineer

Aug'22 - Mar'23

- · Created a HMI emulator for debugging, lauded by stakeholders. Reduced hardware reliance, accelerated feature dev, and chosen for client training.
- Automated image-to-hex conversion and project builds using Python, ensuring seamless feature development; Saving 2 hrs per feature
- Optimised Agile boards by decomposing user stories into tasks and coordinating sprints; increased productivity by 8%.

Ericsson India

AI/ML Intern Jun'21 - Aug'21 • Analysed large datasets; applied ML models like Linear Regression, Decision Trees, and AdaBoost for predictive analysis.

- Utilised 5 performance metrics including recall, f1score, precision, accuracy and ROC curves to assess the performance. • Applied K-Means algorithm on the historical IT dataset; hyper-tuned the model using elbow curves, and silhouette method to identify
- optimal clusters.

Lepton Software India

• Leveraged advanced Excel functions like vlookups, pivot tables, and sorts to perform in-depth analysis of 5G market data.

• Presented to stakeholders a strategy on how Lepton can differentiate itself from competitors by leveraging services they offer.

PROJECTS AND ACTIVITIES

Market Research Intern

BCG Gamma Experience Virtual

Data Science

• Enhanced understanding of problem-solving processes and working with challenging data analysis tasks. • Developed practical experience in business problem framing, exploratory data analysis, feature engineering, predictive modeling, and

turning insights into business decisions. Formula Trinity AI

State Estimation and Path Planning

Ireland Nov'20 - May'22

Jun'23

Jun'19 - Aug'19

- Improved sensor data accuracy in autonomous racing car systems by implementing Particle and Kalman filters for noise reduction.
- Optimized racing line selection using A* and Dijkstra's algorithms for maximum performance and speed in autonomous racing cars.
- Mentored new recruits in Python, ROS, and state estimation algorithms, enabling their seamless integration into the team.

Email Client

- Designed an email client for macOS (Unix) architectures; incorporated features like login, search, compose and schedule send
- Implemented the backend and API calls using Python and utilised Kivy for UI design

SKILLS

Programming: C, C++, Python, SQL, XML, Git, Matlab, Verilog, JavaScript, R, Static Analysis, OOP, TeX.

Technologies: GitHub, IAR, Parasoft, PostreSQL, Visual Studio, Linux, Wireshark, SPSS, Protoge, MS Office.