+353 851060434 srahulseth7@gmail.com

RAHUL SETH

GitHub LinkedIn Dublin, Ireland

EDUCATION

Trinity College, Dublin Ireland

BAI Computers and Electronics Engineering *2018 –2022*

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

- Developed, refactored code for a network data application to scan, mine data from 20,000 Irish mail servers.
- Researched encryption key sharing in mail server infrastructure, leveraging Python for data analysis and development on Linux.
- Analyzed JSON metadata using Python on Linux, presenting results with custom node-based graphs, showing 52% public key sharing.

WORK EXPERIENCE

Baker Hughes Ireland

Software Engineer *Mar'23 – Present*

- Worked in a cross-functional team to revitalize legacy oxygen sensor software, focusing on improving human-machine interactions
- Design, developed the Human Machine Interface with over 10 features like password entry, validation, numeric entries
- 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

Market Research Intern *Jun'19 – Aug'19*

- 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

BCG Gamma Experience Virtual

Data Science *Jun'23*

- 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 Ireland

State Estimation and Path Planning *Nov'20 – May'22*

- 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.