

EDUCATION

Trinity College, Dublin

BAI Computers and Electronics Engineering

Ireland

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

WORK EXPERIENCE

Baker Hughes

Software Engineer

India

Sep’23 – Present

- Relocated to India while retaining the same role, continuing to lead and collaborate with the same team
- Assumed lead role 2 months prior to the launch of a key software product, fixed 20+ bugs and conducted a comprehensive cybersecurity review
- Conducted design verification, worked with the testing team, secured launch approval, and averted potential business losses from delays

Baker Hughes

Software Engineer

Ireland

Mar’23 – Sep’23

- Worked in a cross-functional team to revitalize legacy oxygen sensor software; focussed on enhanced human-machine interface (HMI)
- Managed 20+ SW requirement changes as liaison between product management and development with a customer centric approach
- Designed, developed using C (OOP) with over 17 features like password entry, validation, numeric input, customizable dashboard
- Implemented DevOps CI/CD workflow utilizing Parasoft on GitHub, ensuring MISRA compliance; reduced rework by 30%

Graduate Software Engineer

Aug’22 – Mar’23

- Leveraged Win32 to architect, develop an HMI emulator as a Windows app; resulted in 40% acceleration in feature dev process
- The app was selected for client training and deployed in 3 additional projects; established a uniform repository and enhanced working practices
- Optimised Agile board by decomposing EPICS, user stories into tasks and coordinating sprints; boosted timely delivery by 25%
- Documented test cases and code architecture, contributed to design reviews and handled changing of requirements in SW

Ericsson

AI Intern

India

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(s) to identify optimal clusters

PROJECTS AND ACTIVITIES

BCG Gamma Experience

Data Science

Virtual

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

State Estimation and Path Planning

Ireland

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 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: Python, C, C++, SQL, XML, Git, Matlab, TeX, Static Analysis, Unit Testing, Git Workflows

Technologies: IAR, Parasoft, PostgreSQL, Linux, Wireshark, SPSS, Protoge, AWS EC2, Docker