

## SUMMARY

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I'm Rahul - an engineer spanning web dev, embedded systems, backend architecture, and AI development. My technical sweet spot is backend and algorithm work, but here's what I've discovered: I'm passionate about engineering that matters. I care about customer experience, product quality, and code that works. I love presenting complex ideas simply, leading teams through example, and raising my hand when the tough problems need solving. This isn't just how I code = it's how I lead.

## WORK EXPERIENCE

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### Baker Hughes

*Software Engineer*

**India**

*Sep'23 – Present*

- Relocated from Ireland to India, taking on leadership for 1 project and consulting responsibilities for 3
- Led product release & managed technical delivery across 4 projects in 2 years; contributed to PDRs, SRSs, & implementation
- Standardized 10+ hygrometry algorithms and created reusable documentation for future product development
- Spearheading frontend design for a state-of-the-art hygrometer, leveraging TouchGFX & Figma to deliver a modern, interactive UI
- Created tasks in Micrium 3 to integrate TouchGFX with the application; gained exposure to RTOS operations
- Authored 4 design records in 1 year, spanning diverse topics including proprietary algorithms to image conversion scripts
- Led DevOps initiatives; integrated Parasoft test framework using GitHub Actions, & optimized build automation using scripts

### Global Strategic Law Council

*AI Product Leader*

**India**

*Jan'25 – Present*

- GSLC is an NGO empowering communities & advancing social impact; providing pro bono law aid to those affected by climate change
- Collaborated with team to build AI case summarizer that processes uploaded legal documents across 30 lawyer-specified criteria
- Developed Python backend with React frontend, deployed on Digital Ocean; reduced case review time from hours to minutes

### Baker Hughes

*Software Engineer*

**Ireland**

*Aug'22 – Aug'23*

- Joined as a Graduate Software Engineer and was rapidly promoted to SWE 1 within 5 months
- Part of smart analyzers projects; worked in a hybrid Agile environment & used Agile tools for feature breakdown
- Developed backend simulation services using Python, optimizing data processing and automation pipelines
- Created the product line's first icon-based GUI, optimized for small monochrome displays; reduced user errors by 30%

### Ericsson

*AI Intern*

**India**

*Jun'21 – Aug'21*

- Implemented a clustering-based query classifier to categorize internal IT requests, enabling efficient routing and resolution of issues
- Implemented NLP preprocessing, TF-IDF vectorization (Scikit-learn & NLTK), followed by k-means clustering for query classification

## KEY PROJECTS

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### HygroPro XP - Smart Moisture Analyzer

*Lead Engineer*

**India**

*Jan'24 – Oct'24*

- Took over mid-project after lead's departure, launched 2 major releases; \$500K generated within 6 months
- Led a team of 3 developers, delivering 10 high-priority features and resolving 20+ bugs for the second release
- Developed Python-based data processing service for sensor analytics; reduced testing time by 1 month & improved accuracy by 15%
- Improved code modularity & application reliability by refactoring a monolithic 6000-line file; reduced its size by 33%

### XMTCpro - Smart Gas Analyzer

*Consulting Engineer*

**Ireland, India**

*Aug'22 – Sep'24*

- Designed & developed the complete UI/UX, encompassing 17 menu types & 12 core features; generated \$400K+ revenue in 2 months
- Partnered with product and technology teams to develop features & workflows focused on minimizing user errors
- Resolved 70+ bugs, including 40 critical issues within a focused 2-month period, significantly improving software stability
- Led SAST & OSAT reviews for 7+ software releases, ensuring compliance and owning frontend design reviews
- Oversaw static analysis (MISRA C compliance) & collaborated with an external agency to achieve SIL 2 certification

## EDUCATION

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### Trinity College, Dublin

Ireland

*BAI Computers and Electronics Engineering*

2018–2022

- **Dissertation:** Survey & analysis of cryptographic keys on port 25 using Python to identify weak keys and improve security
- **Activities:** Indian Society, Formula Trinity, Voluntary Tuition Program
- Group project ranked Top 5 in class, advanced to EU competition. Developed a sustainable water solution for water-scarce countries

## SKILLS

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**Programming:** Python, C/C++, XML, SQL, Git, Shell/Batch, JavaScript, TeX, Static Analysis

**Technologies:** Figma, IAR, Parasoft, PostgreSQL, Linux, React, Protege, TouchGFX, Git Workflows