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RAHUL SETH

GitHub LinkedIn Gurgaon, Haryana

SUMMARY

I'm Rahul - an engineer spanning embedded systems, signal processing algorithms, and customer-facing product development. My technical foundation in automotive-grade C/C++ programming (MISRA C 2012), signal processing algorithms, and international project delivery drives my passion for engineering that delivers real-world impact. I excel at translating complex technical requirements into reliable solutions, presenting to stakeholders, and leading autonomous projects. Eager to apply my embedded systems expertise to automotive audio innovation.

WORK EXPERIENCE

Baker Hughes **India**

Software Engineer *Sep'23 – Present*

- Led embedded systems development and customer consulting across 4 international projects with autonomous project ownership
- Standardized 10+ signal processing algorithms into reusable libraries, reducing validation time by 50% and eliminating code duplication
- Architected embedded UI systems using TouchGFX for industrial applications, optimizing user experience for field technicians
- Collaborated directly with hardware teams and customers to define specifications and validate embedded system performance
- Implemented RTOS-based applications (Micrium 3) with real-time constraints and hardware integration requirements
- Maintained automotive safety compliance (MISRA C 2012 standard) and drove technical reviews for safety-critical embedded systems
- Managed international stakeholder communication and technical presentations for product demonstrations

Global Strategic Law Council **India**

AI Product Leader *Jan'25 – Present*

- Led cross-functional team development of AI-powered document processing system with customer-defined specifications
- Architected full-stack solution (Python backend, React frontend) deployed on cloud infrastructure
- Delivered measurable performance improvements, reducing processing time from hours to minutes through algorithm optimization

Baker Hughes **Ireland**

Software Engineer *Aug'22 – Aug'23*

- Rapidly promoted from Graduate Engineer to SWE 1 in 5 months through demonstrated technical excellence and leadership
- Develop embedded simulation services for hardware validation, reducing bench-test cycles by 30%
- Design and implement intuitive user interfaces for embedded systems, achieving 30% reduction in operator errors
- Work autonomously on customer sites and international assignments, adapting to diverse technical environments

Ericsson **India**

AI Intern *Jun'21 – Aug'21*

- Implemented signal classification algorithms using machine learning techniques for automated system optimization
- Developed preprocessing pipelines and feature extraction methods for real-time data processing applications

KEY PROJECTS

HygroPro XP - Smart Moisture Analyzer **India**

Lead Engineer *Jan'24 – Oct'24*

- Recovered stalled project autonomously and delivered 2 releases generating $500K in 6 months
- Led 3-engineer team through complex embedded system development with real-time sensor data processing requirements
- Implemented Python-based signal processing algorithms for sensor calibration, improving measurement accuracy by 15%
- Optimized embedded C/C++ codebase through modular architecture, reducing memory footprint by 33%

XMTCpro - Smart Gas Analyzer **Ireland, India**

Consulting Engineer *Aug'22 – Sep'24*

- Designed complete embedded UI/UX system for industrial analyzer, generating $400K+ revenue within 2 months of launch
- Collaborated with international product teams and customers to define specifications and minimize operational errors
- Delivered critical bug resolution under tight deadlines, achieving 99%+ field deployment stability
- Implemented automotive-grade code compliance (MISRA C 2012) and collaborated with external agencies for SIL-2 certification
- Managed customer demonstrations and technical presentations for international stakeholders

EDUCATION

Trinity College, Dublin **Ireland**

BAI Computers and Electronics Engineering *2018 –2022*

- **Dissertation:** Cryptographic signal analysis and security optimization using Python-based automation tools
- **Activities:** Lead Engineer Formula Trinity (automotive engineering project), International Student Leadership
- Top 5 capstone project: sustainable technology solution advancing to EU-wide engineering competition

SKILLS

Embedded Systems: C/C++, STM32, RTOS (Micrium 3), TouchGFX, Hardware Integration, Real-time Processing

Signal Processing: Algorithm Development, Python, Data Analysis, Sensor Calibration, Performance Optimization

Development Tools: IAR, Git, Parasoft, MISRA C 2012 (Automotive Standard), Static Analysis, GitHub Actions, Linux

Customer Engagement: Technical Presentations, Specification Definition, International Collaboration, Autonomous Project Delivery