

조락현 | Rakhyeun Jo

⚡ Embedded System Engineer | 9 Years Experience | HW/FW Full-Stack

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📁 핵심 역량 | Core Competencies

9년간 STM32 기반 임베디드 시스템 Full-Stack 개발 전문 (회로 설계 → 펌웨어 → 양산)
8+ 분석 장비 메인보드 설계 및 양산 완료
HW/FW 통합 개발로 디버깅 효율 40% 향상
FreeRTOS, PID Control, Ethernet 통신 전문
과동화 테스트 JIG 개발로 검사 시간 60% 단축
뮌헨 발명 2건 출원 (가스 제어, 광학 분석)

🏢 Work Experience

ATIK Co., Ltd.

Senior R&D Engineer

📅 Aug 2020 ~ Present (5y 5m) | R&D Center / Main Board HW/FW Design

PSI-1000/3000: Precision Gas Pressure Control System
LP-LPC: Laser Particle Analyzer
MS: Mass Spectrometer DRV Board
JIG System: Automated Board Test Equipment
LT-Titrator: Titration Concentration Analyzer
NU-2000: UV+IR Optical Concentration Analyzer
GSQuantrol: Gas Control Equipment
Sigma/Epsilon/SSC Series

Chemtronics Co., Ltd.

Junior R&D Engineer

📅 Aug 2019 ~ Aug 2020 (1y) | Consumer Electronics Team / Touch Module

LG Induction/Oven Touch PBA Mass Production
Samsung Air Conditioner Touch PBA Mass Production
Winix Air Purifier Touch PBA
Heatz Hood Proximity Sensor Touch PBA

Dreamtech Co., Ltd.

Junior R&D Engineer

📅 Nov 2016 ~ May 2019 (2y 7m) | Advanced R&D Lab / Fingerprint Module

Hyundai Motor Fingerprint Recognition PBA (Mass Production)
Mobile Ultrasonic Fingerprint Recognition PBA
FPC Fingerprint Recognition PBA ODM
3D MID Automotive Module (Government Project)

🔧 Technical Skills

⚡ Circuit Design

STM32F4/F7 Main Board Design
Switching/Linear Regulator Power Supply
16-bit ADC + OP-Amp/TIA Sensor Circuit
16-bit DAC External Interface
Photocoupler Isolation Circuit
PCB Artwork (PADS, Altium Designer)

💻 Firmware Design

STM32 Firmware Development (C)
FreeRTOS Task Management
PID Control Algorithm
Y-modem IAP Bootloader
Ethernet TCP/UDP Communication
UART/SPI/I2C Protocol
Touch LCD UI/UX Design

💻 Tools & Software

Circuit: OrCAD, PADS, Altium Designer
Firmware: STM32 IDE, VS Code
Software: C, Python
Version Control: Git, Tortoise SVN

🎓 Education

Myongji University (2011~2017)
Bachelor of Science in Electronics Engineering

📜 Certifications

Computer Specialist Level 3
ITQ: HWP(B) / Access(B) / Excel(B) / PowerPoint(A)
TOEIC Speaking: 110 (Intermediate Mid 1)
Excavator Operator License (2012.11)

🏆 Awards & Activities

Hanium ICT Contest - Korea IT Industry Association (2016.09~2016.12)