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TECHNICAL SKILLS/ADDITIONAL SKILLS

- Programming languages: C, Python, Android, DOS, Tcl, JAVA Script, Verilog. Achievement: 2nd place, *Inaugural Singapore Android Developer Challenge 2010*.

- Communication Protocol: IEEE802.11, IEEE802.11s, EasyMesh R1/2/3/4/5/6, TCP/IP, WiFi6/7.

- Simulation Software: Matlab, LTSpice, ANSYS, Mathematica.

- Source control and quality control: Git, SVN, Gerrit, Jenkins, CI/CD, WIKI, JIRA.

- Business knowledge: High-tech marketing and innovation management, Knowledge management, Human management, Engineering accounting, Financial report and accounting, Enterprise development.

- Certificate: Linux, Redhat Certified Engineer (RHCE), CCNA, Tableau, Google Data Analytics, PMP, Scrum-Master, CFA candidate, Internal Auditor.

WORK EXPERIENCE

Realtek Singapore Pte. Ltd - 07/2014 to Present

Team lead/hiring manager - 07/2018 to Present

- Lead and manage a team of 23 R&D software engineers. Allocate resources for different projects and R&D tasks, use Agile tools like CI/CD, JIRA to track progress, Jenkins and Gerrit for bug tracking and WIKI for knowledge management.

- Oversee projects status, ensure timely delivery and guiding members in code design and bug fixing. Serve as the bridge between the R&D team with other internal teams as well as customers' teams.

- Handle administrative tasks, including status reports, KPI evaluations, and training programs. Source and hire talent, expanding the team from 5 to 23 engineers over the years.

- Guide and assign jobs for the team, negotiate work contents, schedules, and deliverables. Check design document, test plan and user guide to ensure the product meets customer requirements and performance is one of the best in the industry.

- Review code, handle patent design discussion, review and application for the team members. Apply around 3 patents every year.

- Foster team performance through training, morale-boosting activities, and regular communication.

- Collaborate with different stakeholders: product managers, project managers, sales/marketing representatives, different R&D teams, field application engineers, etc. Collaborate with internal teams from Singapore, Taiwan, Shenzhen and Suzhou to fulfil customers needs.

- Maintain good relationships and cooperate with telco customers include: Singtel, China Mobile, China Telecom, China Unicom, Chuanghawa Telecom, NEC, Thai Telecom, Mexico Telecom etc; original design manufacture (ODM) customer includes: Huawei, ZTE, Xiaomi, Dlink, TP-Link, Fibrehome, Skyworth, HKVision, Tenda etc.

Staff software engineer - 07/2014 to 07/2018

- Handled technical R&D jobs include WiFi protocol development, wireless driver, PON/AP firmware and user space development, system porting and integration, etc.

- Ported EasyMesh code into different Linux architectures and different chip SoC.

- Developed smart roaming mesh function for Singtel home fibre mesh. Designed Auto Access Controller Selection protocol and implemented to meet various needs and rolled out to all customers: https://www.singtel.com/personal/products-services/broadband/wifimesh.

- Developed Android applications for communication between devices using WiFi and Bluetooth. Developed Network Attached Storage (NAS) solution and migrated into different Linux-based AP boards. It can serve as an AP router and NAS at the same time.

- Debugged local and overseas customer issues remotely and on-site to satisfy customers' requirements, help customers to pass Telco's certificate and tender criteria. Demonstrated and discussed our product and solutions for potential customers to prompt our product.

- Established CI/CD tools and testing environments for better product performance. Setted up different servers for better team efficiency and management.

Australian National University (ANU), Researcher - 12/2013 to 04/2014

- Decoded and analysed packets getting from SMA solar panel inverter for utilisation.

- Worked with researchers from Australia's Information and Communications Technology (ICT) Research Centre of Excellence (NICTA) to design prototypes.

- Designed and developed a low-cost 3-G based PV data logger using Arduino. This project was undertaken to support the ANU/NICTA solar forecasting collaboration, "machine-learning-based forecasting of distributed solar energy production".

SysEng (S) Pte Ltd, System Engineer - 06/2010 to 01/2012

- Designed and deployed real-time monitoring systems for PUB, NEA: water-level monitor, water drain real-time CCTV monitor system, rooftop weather station etc.

- Designed the data logger to communicate with a variety of sensors and feedback to centralised server: https://app.pub.gov.sg/waterlevel/pages/WaterLevelSensors.aspx.

- Led the commissioning of around 60 monitoring stations across Singapore, ensuring ongoing performance.

- Promoted Singapore Machine to Machine (M2M) platform and Singapore Industrial Automation Association (SIAA), developed systems for demonstration and attended events and meetings for the promotion of industrial Internet of Things (IoT).

EDUCATION

- National University of Singapore (NUS) *Master of Science (Management of Technology) (2018-2020)*

- Australian National University (ANU) *Bachelor of Engineering (Electronics & Communication) (2012- 2014)*

- Singapore Polytechnics (SP) *Diploma in Engineering (Computer Engineering) (2007- 2010)*

PERSONAL INTERESTS

- Sports: Mixed Martial Arts, boxing, Snooker, Basketball, Swimming.

- Volunteering job: Math coach for low-income families, improving student performance by over 50%; computer literacy instructor for the elderly.

- Creativity: Ceramic art, Cooking.

- Leisure: reading (ave. one book per three weeks), lifelong learning, and attending conventions.