Gregory Kelleher

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Summary

- Software Engineer with strong R&D experience across a broad technological domain, encompassing a diverse set of IoT, Automotive and Web projects
- Comprehensive experience developing and testing embedded and system software, with the express inclusion of CI/CD automation
- Sub-team lead coordinating software delivery with input on key architectural design and technical decision-making
- Regular presenter on company-wide technical presentations to global teams

Experience

Jaguar Land Rover Research & Development Ireland Ltd / Software Engineer
AUG 2018 - PRESENT, SHANNON

- Hired to join inaugural software team at R&D Global Digital Development (GDD) Software Centre
- 2 years of experience delivering original software across a balanced portfolio of both research and production projects
- Consistent emphasis on developing robust ASIL-D rated software at the highest safety-critical requirements (ISO 26262, AutoSar, MISRA)

- **Vehicle Domain Control Unit (VDC - Production):**
  - Continuous contributions to the BSP for the new Land Rover Defender (L663) programme
  - Built extensive experience with state-of-the-art automotive virtualisation technologies
  - Heavily involved in the design and development of the off-boarding agent for the Land Rover Defender, with the goal to provide SOTA capabilities to enable Level 2 grade ADAS diagnostics

- **Next-Generation Electrical Vehicle Architecture (EVA - Research):**
  - Long-term commitment writing bespoke software to evaluate experimental EVA architecture proposals
  - Assisted in the construction of a full-sized vehicle skeleton rig to demonstrate software running on genuine automotive hardware
  - Maintained and enhanced cross-team GitLab CI/CD pipeline automating development for the entire project

Intel Research & Development Ireland Ltd / Software Engineer
FEB 2017 - AUG 2017, LEIXLIP

- Internship with Strategy & Solutions Engr. Division - Internet of Things Group
- Conducted empirical study into Node JS applicability for Quark SoC platform
- Delivered individual research project to investigate information security with respect to IoT:
    - Illustrated the use of experimental "Zero-Touch" Secure Device Onboarding using Direct Anonymous Attestation (DAA) algorithms
    - Carried out an implementation of the latest in TLS/SSL best practices, e.g. HSTS, HPKP, HTTP/2, OCSP stapling .etc
    - Achieved highest possible Qualys SSL Labs A+ web server grade to exemplify findings

Intel Research & Development Ireland Ltd / Software Engineer
MAY 2016 - SEPT 2016, LEIXLIP

- Internship with Quark Solutions Division - Internet of Things Group
- Contributed to latest firmware for newest-release Atlas Peak BSP
- Increased working experience with production VSC, CI/CD and Agile tooling, e.g. Git, Gerrit, Jenkins and JIRA .etc
- Built proficiencies with dynamic testing analysis for SoCs (including in-circuit emulation and ICSP tools)

Proficiencies

- **Systems and Embedded Programming**
    - Modern C++ (C++11 and above) with Modern CMake (3.1+)
    - Google Test and Conan Package Manager
    - Git and GNU toolchain (gcc, gcov, gdb .etc)
- **Debugging and Analysis**
    - Valgrind, Clang-tidy and Cppcheck, LDRA, OpenOCD
- **Operating Systems and Platforms**
    - Linux and QNX (Micro-kernel UNIX)
    - Yocto Project and BitBake
    - Numerous (x86/ARM) evaluation boards and SoC platforms
- **DevOps and Web**
    - GitLab Runner, Docker, Vagrant, Packer, Ansible, Artifactory, GCP Cloud
    - Minor familiarity with Terraform, Jenkins and GitOps workflow
    - NGINX and Caddy web-server (with optimisations) using DigitalOcean

Education

Maynooth University / B.Sc. Computer Science & Software Engineering
SEPT 2014 - MAY 2018
2:1 Upper Second Class Honours