HARISH KUMAR

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SUMMARY

- Expertise in the field of embedded systems and IoT.
- Expertise with Linux.
- Demonstrated working knowledge of ISO7816, GSMA Remote SIM Provisioning, SIMAlliance, 3GPP, ETSI, Global Platform specifications.

SKILLS

- Embedded Systems Design
  - o Kernel & Distributions: Linux (Ubuntu, RHEL)
  - o AT89C51, PIC16F877A, ARM7, ARM Cortex M-Series
  - o Communication Protocols: UART, I2C, SPI
  - o RTOS: Java Card Open Platform (JCOP)
  - o Pre-Silicon (SoC) functional verification using FPGA before tapeout.
  - o Cadence OrCAD - Schematic capture, PSpice circuit simulation, PCB Design.
- Programming Languages
  - o Bash scripting, JCOP Shell scripting, Embedded C, Advanced C, Data structures, Object oriented programming, Java, Java Card Applet Development, Python3.
- Linux
  - o Process and Scheduling: Linux Kernel system calls, IPC mechanisms – Pipe, FIFO, Shared memory, pThreads - Multi thread programming, Semaphore, Mutex.
  - o Signals, Interrupt handling.
- Version Control: Git, GitHub, Tortoise SVN, ACME Clearcase
- CI/CD Tools: Collabnet Teamforge, Nexus, Jenkins, JIRA, Cisco Proprietary In-house tools.
- Scrum: Agile development methodology

EXPERIENCE

CISCO SYSTEMS, INC. – Bangalore, India
Software Engineer   *Mar 2021 – Present*
- Development of Linux kernel networking stack and device drivers for Broadcom and Cisco ASICs.
- Cisco 9k series switches

NXP SEMICONDUCTORS – Bangalore, India
Software Engineer – Embedded Systems   *Apr 2019 – Dec 2020*
- Go to person for eUICC/eSIM system specific compliance issues.
- Designed and developed Secure Element/eUICC Communication Protocol Stack.
- Designed and developed RTOS features for SoCs based on ARM Cortex M microcontroller.
- Bug fixing and refactoring of device drivers (ISO UART, SPI, I2C).
- Pre-Silicon (SoC) verification using FPGA emulators before tape out.
- Analysis, reproduction, and resolution of customer reported issues.
- Hardware setup and troubleshooting with logical analyzers, oscilloscopes and various other post silicon validation tools from third party vendors such as Comprion, Galitt, FIME, UL.
- Board bring-up

EDUCATION

ANNA UNIVERSITY – Chennai, India   *May 2018*
Bachelor of Engineering, Electronics and Communication; Cumulative GPA: 3.3/4.0

OTHER SKILLS, INTERESTS, AND ACHIEVEMENTS

- Soft Skills
  - o Outgoing person with excellent communication, leadership and interpersonal skills.
  - o Elected leader of the school during intermediate studies.
- Scholarships, Awards and Accolades

- o Received best project award from the Magistrate-Indian administrative service.
- o Topper of the state in literature during intermediate.
- o Received scholarships from Chief Examination Officer of Tamil Nadu's Education Board.
- o Received awards and accolades during school and university studies.
- Hobbies
    - o Classical Music - Played more than 150+ stage and theatre plays. Received awards and prizes from dignitaries.
    - o Sports - Cricket, Volleyball, Chess, etc. Won medals in NXP Sports events, college & intermediate school events.