Ranjith Tamil Selvan

713-533-2080 ·ranjithtamselvan@gmail.com·Texas A&M University, College Station
https://www.linkedin.com/in/ranjith-tamil-selvan/
https://github.com/ranjithtamil/cplusplus

EDUCATION

Texas A&M University, College Station, TX — May 2020

- Master of Science in Computer Engineering (CEEN) — (GPA: 3.8 / 4.0)

(Courses – Algorithms, Operating Systems, Distributed Systems & Cloud Computing, Secure Computer Systems, Software Engineering)

College of Engineering Guindy, Chennai, India — April 2015

- Bachelor of Engineering in Electronics and Communication — (GPA: 3.5 / 4.0)

SKILLS

Programming Languages: C, C++, Python
Languages: English (Native), Tamil (Proficient), Hindi, Malayalam, Arabic (Limited)
Areas Of Interest: Operating Systems, System software, Virtualization – Xen hypervisor, networking

EXPERIENCE

Fujitsu Network Communications

Software Engineer III, Richardson, TX — ***September 2020- Present***

- Develop software features for the Layer3 protocols team working on dhcp, ospf
- Bring-up of switch-emulator for easier and faster prototyping

Arista Networks

Software Development Intern, Austin, TX — ***May 2019- August 2019***

- Implemented a leader-election algorithm for high availability of Arista's extensible operating system (EOS) switches in C++/Python
  - Fixed software bugs in hardware abstraction modules and infrastructure modules

Nokia

Technical Lead, Platform Team Core-1 Protocols, Chennai, India — ***May 2018- August 2018***

- Developed software for platform and infrastructure teams for Nokia's network switch (7302/7330 products)
- Customized HAL source code between network OS and network processor sdk (Broadcom sdk)
- Implemented feature requirements for infrastructure modules such as card management & redundancy

Senior Software Engineer — ***May 2016- April 2018***

- Spearheaded code-porting of edge router network stack running on different platforms onto Nokia's platform – involved customizing hardware dependent platform source-code on different architecture, CPU and network processor
- Performed initial source layout analysis, creating development environments for the team – cross-compiling for target, building common system libraries and OS libraries
- Migrated existing third-party toolchain (Greenhill's) to open-source GCC, resulting in enhanced compile time (by 70%), reduced image size (reduced by 50%)
- Developed, improved and integrated a new system wide tracing instrumentation framework process for timestamping, stack-tracing, dumping useful platform details and packet tracing to improve developer live debugging and prototyping

Graduate Engineering Trainee — ***June 2015- April 2016***

- Customized board support package (BSP) for a new quad core PPC based Freescale SoC (T2080) hardware
- Specialized in use of on-chip JTAG debuggers (GHS Multi, CodeWarrior, Lauterbach trace) for board-bring up, customized VxWorks source in areas of initialization, memory management, interrupt controller, process scheduler and bringing up kernel shell
- Collaborated with managers, technical architects and software testers to fix bugs and provide solutions by analysis of post-mortem logs obtained from system-crash scenarios from field (and) scaling tests