Senior Software Engineer

Skilled in a diverse range of technical areas including driver and firmware development, networking, and debugging. Proven track record of innovation in developing solutions for complex issues. Known for strong analytical skill, attention to detail, and the ability to exceed expectations in a self-directed or team-based environment.

Core Competencies:

- Programming Languages: C/C++, Java
- Tools & Technologies: Git, Subversion, JIRA, Confluence, JTAG, Oscilloscopes, Logic Analyzers
- **Protocols:** SSDP/HTTP, CoAP, JSON, SMBus, I²C, AC'97
- Development Environments: Visual Studios, Node.js, Mocha
- Firmware/OS Development: Linux/Windows CE Device Drivers, DivX DRM, POSIX Network
- Firmware/OS Technologies: Yocto, Buildroot, OpenWRT, JFFS2, UBIFS

Accomplishments:

- **Remote Server Discovery:** Implemented SSDP in boot-loader to enable remote server discovery of IP addresses for test devices.
- **Network Multicasting:** Enhanced boot-loader with the ability to receive multicast packets, join/leave multicast groups, and handle packets accordingly.
- **POSIX Network API:** Reduced development time by implementing a subset of POSIX network API in the boot-loader to improve code reuse.
- **Customer Issue Resolution:** Efficiently triaged, assigned, and prioritized customer issues while effectively managing customer expectations.
- **Thermal Characterization Improvement:** Developed and implemented improvements to thermal characterizations and sensor readings in chips.
- **Debugging Current Leaks:** Diagnosed and found workarounds for current leakage issues using oscilloscopes to analyze GPIO behavior.

• **DivX DRM Support:** Developed and implemented DivX DRM support for DirectShow components and player, and architected a secure handshake protocol.

Professional Experience:

- 1. **Broadcom Limited (2012 2016):** Senior Software Engineer responsible for firmware and driver development, debugging, and enabling commands and queries between automated test servers and devices.
- 2. **Netlogic Microsystems (2009 2012):** Senior Software Engineer with focus on chiplevel thermal characterization improvements and hardware/software debugging.
- 3. **RMI Corporation (2006 2009):** Software Engineer involved in board-level debugging, inter-device communication improvement, and DivX DRM support development.
- 4. Advanced Micro Devices (2004 2006): Software Engineer supporting the Microsoft WMV9 certification processes and optimizing video decoder performance.

Education:

Bachelor of Science in Computer Science

California State University, Fresno