

SHAWN NEMATBAKHSH

SF Bay Area, CA, USA

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SUMMARY

Experienced embedded software engineer. Many years experience in firmware development, bring-up, design, test, and debug of embedded devices. History of contributions to popular RTOS + FW open source projects. Experience in semiconductor, PC, automotive, and imaging industries.

EXPERIENCE

Rivos

Oct 2021 - Present

Software Engineer

Santa Clara

- Design, test, and bring-up of SOC power management firmware running on RV32 cores.
- Silicon bring-up, test, and validation.
- Open source FW contributions for OpenTitan (open source Root-of-Trust) in Zephyr RTOS.
- Software tooling for control of FPGA prototyping platforms.
- Software tooling for power delivery testing of mainboards.
- PCIe power logging system, firmware, and tools deployed in datacenter (<https://github.com/rivosinc/pcie-power-logger>).

Waymo

Jan 2018 - Oct 2021

Embedded Software Engineer

Mountain View

- ECU firmware for brakes, steering, throttle, and lighting control of autonomous cars and trucks.

Google

May 2012 - Jan 2018

Software Engineer

Mountain View

- Embedded controller, BIOS, Linux kernel, platform and component bring-up for Google-branded and third-party Chromebooks.

Zoran

Feb 2008 - May 2012

Software Engineer

Sunnyvale

- AE / FAE for Camera SOC firmware, supporting camera SDK for top point-and-shoot camera customers.

Medlink Healthcare Networks

Jul 2006 - Jan 2008

Software Engineer

Los Angeles

- Technical sales and web development.

DNF Controls

Mar 2005 - Jul 2006

Embedded Software Engineer

Los Angeles

- Firmware development for devices used to control video servers used in broadcast industry.

TECHNICAL SKILLS

Skilled embedded C programmer. Also familiar with C++, Python, Java, Perl.

Familiar with many technologies commonly used in embedded devices, such as I2C, SMBus, SPI, CAN, UART.

Significant open source contributions to cros-ec, Coreboot, Zephyr, Linux kernel, and other popular open source projects.

EDUCATION

University of California, Riverside

2005

M.S. in Computer Science

MS Thesis: External Interfaces and Software Tools for Electronic Blocks.

Worked as TA, Linux SysAdmin, and RA in Embedded Systems lab.

University of California, Riverside

2003

B.S. in Computer Science

BS Project: UNIX Password Cracking with FPGAs.

Worked as RA and Grader.

LINKS

Homepage: www.nematbakhsh.com

LinkedIn: www.linkedin.com/in/shawnnemat/

github: www.github.com/snematbakhsh