San Jose, CA • (408) 318-3411 • abswndfr@gmail.com

Scott (Seok) Lee

Professional Summary

An experienced and accomplished firmware engineer with over 25 years in the storage industry. Expertise in firmware development, embedded system design, storage system architecture ranging from SSD, software defined storage, and HDD. Proven record in product delivery from defining stage to end of life with customer engagements.

Skills

- Embedded S/W architecting, design, implementation and debugging, RTOS, simulator, pre- & post-silicon validation and silicon bring-up, performance analysis, LDPC read retry, NAND characterization, NAND based SSD firmware development and debugging, manufacturing firmware, customer engagements.
- Language: C/C++, Python, Javascript/html, assembly, shell script, SQL
- Processors: ARC(Synopsys), ARM processors, MicroBlaze(Xilinix), Pine/Oak/Teak(CEVA DSP), Intel
- Standards: ONFi, NVMe, SATA/PATA
- NAND: SK Hynix V3/V4/V5, WD BiCs 4 & 5, Micron B47R, Kioxia BiCs 4 & 5, YMTC Elite X1 / X2
- Debugging Tools: Trace32, RealView-ICE, Metaware, GDB, OpenOCD, logic/protocol analyzer, scope

Experience

PetaIO Inc. Santa Clara **Principal Firmware Engineer** **2017 – present**

- Provided guides to hardware design team for firmware interface to in-house NAND controllers
- Initially brought up the simulator and the firmware for the in-house NAND controllers.
- Led back-end FPGA level validation.
- Enabled state of art NAND trims from most NAND vendors.
- Supported LDPC validation, implemented RRT / LDPC retry, and 1st responder to all kinds of UECC.
- In charge of demo in FPGA & silicon for the investors, partners, and customers.
- In charge of back-end silicon bring up.
- Provided initial manufacturing code for the 1st shipment of the company
- Led NAND characterization firmware implementation and provided support for media engineers.

HoneycombData Inc. Santa Clara **Sr.Staff Software Engineer** **2015 – 2017**

- Developed Unified FTL to achieve full stack integration in a software defined storage cluster based on KV engine.
- Led Front End (FE) design and development bridging outsourced FE engineers and in house BE people.
- Product manager of the 1st generation product supporting world-wide customers in Asia.
- Hosted exhibition at 2016 Flash Summit.

Marvell Semiconductor Inc. Santa Clara **Staff Firmware Engineer** **2013 - 2015**

- Lead firmware engineer in DSP group enabling LDPC read retry in all Marvell's SSD controllers including Dean & Eldora.
- Enabled LDPC read retry in most major customers' firmware: Micron, LiteOn, Sandisk, Seagate, etc.
- Pre- & post- silicon validation for LDPC features.
- Prepared 2014 MWC exhibition with eMMC controller presented by the current Innogrit CEO.

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Samsung Electronics Co. Suwon, Korea **Principal Firmware Engineer** **1997 – 2013**

- Firmware team lead for all the mobile HDD products until Seagate acquired Samsung's business.
- Customer engagements over 40 companies including major ones like Apple, HP, Lenovo int'l, Dell, Acer, Asus, Toshiba, NEC, SONY etc from initial business development thru volume manufacturing such as holding design review for the new products, joining regular technical meetings, and resolving qualification and field issues.
- Firmware team manager for the 1st HDD project using ARM processors.
- Lead firmware engineer for the 1st self-servo writing technology using Samsung's in-house HDD controller.
- On-site support for hybrid HDD at Dell HQ.

Education

M.S., Mechanical Engineering, Hanyang University
1997

B.S., Mechanical Engineering, Hanyang University
1995

Award

Special Contribution Award by CEO of Samsung Electronics Co.
2008