COLLIN PARK
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SUMMARY

Senior Linux/UNIX engineer with tremendous breadth and depth in all areas of operating systems, drivers, and networking. Comes up to speed quickly on new technical areas, and completes high volume of quality work with little or no direction. High-performance team builder; finds creative ways to progress complex software development efforts with limited resources.

SELECTED ACCOMPLISHMENTS

- Led OS team for Linux-based internet appliance. Designed, coded, integrated changes to LILO, kernel, drivers, utilities, and build scripts, to deliver complete embedded Linux distribution. Overcame shifting, ambiguous requirements, enabling on-schedule completion and successful product launch.
- Enhanced UNIX-based ia64 simulator and PA-RISC emulator to support proprietary OS, including instruction set changes, cross-architecture call/return and debug facility, and 500% performance improvement. Overcame several obstacles, enabling progress with very limited resources.
- As HP-UX OSI networking architect, oversaw kernel port of third party OSI protocol stack, including upper and lower layer interfaces, coexistence with existing TCP/IP and OSI implementations and applications, IPS/OSI migration, and SMP issues. Devised an optimized buffer management scheme which prevents buffer runouts in low-memory conditions, thus eliminating sporadic system crashes and building credibility with SW supplier/partner. Resolved various problems, including panics, related to kernel port.
- Solved critical problems by coding or debugging in areas of no prior technical expertise, unblocking software release activities or stopping system crashes at customer sites.
- Conceptualized, designed, implemented innovative scheme for porting software to a new processor, allowing application and its libraries to be ported in parallel rather than serially. Led team which used this scheme to complete a 390,000-line port a full year ahead of schedule.
- Investigated, designed, implemented improvements to boost filesystem performance of BSD LFS in directories with large numbers of files; *postmark* showed over 25% improvement on 150,000-file test.
- Devised scheme to expand address space of "32-bit" HP-UX processes, using undocumented features of HP-UX operating system, for large contract requiring >4GB addressable shared memory.

CHRONOLOGICAL SUMMARY

- Hewlett-Packard Company — July 1976 - July 2002

Embedded Software Operation (Palo Alto): Software Architect — February 2001 - July 2002
Digital Entertainment Center program: system startup, kernel, drivers, graphics subsystem

Commercial Systems Division (Cupertino): Software Architect — May 1999 - January 2001
MPE/ia64 program: PA-RISC emulator for MPE/ia64; language roadmap; runtime architecture

HP Japan (Kobe and Osaka): Lead Engineer — April 1995 - March 1999
Development environment for joint (HP/NEC) kernel development;
Sumitomo Life project: win32 application development;
Divisonal task force: surveyed markets and technologies.

HP Japan (Tokyo). Project Lead — July 1993 - March 1995
Liaison and internal consultant for NTT-SMS development team

HP-UX Networking R&D labs (Cupertino): Engineer/Scientist — August 1985 - June 1993
OSI architect; OSI committees and OSF; OSI marketing liaison; Netware/PA-RISC

HP3000 Networking R&D labs (Cupertino): Development Engineer — June 1982 - June 1985
LAN card driver, firmware; networking subsystem

HP3000 Networking R&D labs: Project Manager — August 1981 - June 1982
LAN project

HP300 R&D labs: Development Engineer — July 1976 - August 1981
Terminal control hardware; HP300 CPU firmware; utility software

EDUCATION

- Master of Science, Stanford University, Electrical Engineering
- Bachelor of Science, Stanford University, Mathematics