KEVIN GRANT

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Objectives

Major software development and leadership responsibilities in the San Diego, CA area, or remote.

Experience – Industry

Senior Manager, Mac Desktop GoPro — 2021-present

- (Undisclosed projects.)

Staff Engineer, Architecture / Camera Qualcomm — 2017-2020

- Developed software model for camera hardware (pipeline of components), as well as tests.
- Optimized, automated and improved accuracy in code.
- Tracked team status; also managed intern and contractor.

Senior Infrastructure Architect NVIDIA Corporation — 2015-2017

- Developed technologies to support graphics processor design.

Principal Software Engineer, CAD Tools Oracle (formerly Sun Microsystems) — 2009-2014

- Created efficient software for microprocessor design (timing analysis, data model, tests).

Software Engineer, CAD Tools Freescale Semiconductor (Motorola) — 1999-2009

- Added to semiconductor design tools: timing, characterization, system-level and physical.
- Assisted with porting across APIs, operating systems, architectures and compilers.
- An architect and developer of company-wide design infrastructure, and several web sites.

Internships Summers, 1996-1998

- Including: image software for scoliosis research (Glenrose Rehab. Hospital Research Center), multi-platform data organizer (Univ. of Alberta), infrastructure, e.g. builds (Intuit Canada Ltd.).

Experience – Personal Projects

Open-Source Software: "MacTerm" (formerly "MacTelnet") 1998-present

- Sophisticated terminal emulation program on macOS / OS X. See: "www.macterm.net".
- Developer for over 20 years: continuously enhancing, porting to new APIs as OS evolves.

iOS and Mac game: "Celtreos" (on App Store and Steam) 2013-present

- High performance, multi-platform code. Created software, artwork, and music.

Experience – Academic

University Projects 2016, 1997-1999

- Graduate final project and report (2016): visualization software for RNA folding research (biological science); improved capacity, extensibility, multi-tasking, usability, efficiency, accuracy and testing. Implemented in Java, and JavaScript support was added.

- Undergraduate team projects (1997-1999): RC car with voice commands, using an FPGA; small self-driving vehicle with sensors, microprocessor; basic Linux kernel programming.

Skills

Coding

- Accomplished programmer and architect, coding for 25 years. Projects include: a terminal emulator, CAD tools for microprocessor design, games, graphics editors, scripts and more.
- Familiar with various concurrency mechanisms, like: Grand Central Dispatch in Objective-C, POSIX threads, and some standard Java libraries.
- Recent languages used: C++14, Objective-C, Python, Swift, shells, Java, JavaScript, Perl, TCL.
- Recent APIs used: Cocoa, SwiftUI, POSIX, standard libraries such as C++ STL and Python.
- Recent development targets: macOS / OS X, iOS, Linux variants, Windows 10.

Testing

- Produced small, specific test programs for projects and tied them into automated test suites.
- Recent tools used: Python "doctest" and "unittest", proprietary infrastructures, scripts.

Debugging

- Work on many code bases has led to experience with several debugging methods and tools, and a tendency to write code that is inherently easier to debug.
- Recent tools used: "gdb", "lldb", Instruments (macOS / OS X), "valgrind" (Linux) and "strace".

Building and Administering

- Built and installed many tools from source, in a variety of environments.
- Experience maintaining bug tracker, license servers, web servers, personal software.

Automating

- Extensive expertise in automation and infrastructure, including: code generation, organizing data, automating tasks with scripts, and combining basic tools to accomplish a goal.

Documenting

- Excellent communicator. Strong documentation skills from layman and technical points of view. Software background used for more effective documentation. Adept at "raw" markup.
- Used HTML+CSS, Confluence/wikis, Perl POD, Textile, Markdown, reStructuredText, LaTeX.
- Top 8% of users on StackOverflow.

Education

MSc. Electrical and Computer Engineering

Univ. of Texas — Austin, Texas — 2016 *GPA: 3.9*

Classes: databases, data mining, distributed systems, multi-core programming and embedded systems, among others.

BSc. Computer Engineering

University of Alberta — Edmonton, Canada — 1999