

Software Skills

Languages

- Swift, Objective-C, Python
- C++, C, Java, L^AT_EX, Markdown
- Bash, Git, Svn, make, CMake, Redmine, Jira, Jenkins, Gitlab
- OpenGL, Cocoa, GNUstep, iOS, Docker
- Matlab, Vapor

Experience

Senior Software Developer

Aug 2014 - Present

Eggplant (formerly Testplant)

Boulder, CO

Developed desktop software for a suite of functional testing products

Tech used: Swift, Objective-c, Cocoa, GNUstep, iOS, Python, C++, OpenCV, Docker, Gitlab, Jenkins, Jira, Git, MacOS, Linux, Windows, MinGW

- Lead feature development, working independently when needed on major features
- Developed cross-platform applications using Objective-c (Cocoa) and GNUstep
- Maintained Jenkins build server and build environments for Mac, Windows, Linux
- Identified and fixed complex bugs and issues, including inside GNUstep
- Integrated 3rd party open source libraries into application
- Migrated linux build machines to Docker images
- Migrated svn repositories to git. Frequently the team's go-to person for help with git
- Helped identify ideas and ways to improve the applications, both user facing improvements and internal technical improvements
- Part of an agile development team using scrum practices
- Keep up to date with Apple technologies and trends

Software Engineer

Jan 2012 - Aug 2014

QiG Group, Greatbatch Medical

Broomfield, CO

Medical device software development, including user interface, rendering engine, algorithms, data acquisition

Tech used: C++, Objective-c, Java, Svn, Git, CMake, Gradle, SQLite, Redmine, OpenGL, Matlab, iOS, WinCE

- Architect, design and implement software for a Clinician Programmer Application.
- Design, implement, and optimize an embedded 3D rendering engine
 - OpenGL ES 2.0
 - Textures, shaders, vertex buffers, etc.
- Investigate proofs of concept for new features (software application for Clinician Programmer)
- Interpret functional requirements to implement software application for a Clinician Programmer
- Mathematically solve and implement algorithms designed for a Clinician Programmer
- Implement laboratory data acquisition virtual instruments
- Setup and run equipment and proprietary virtual instruments during pre-clinical animal research labs

- Prepared releases for numbered software versions
- Multiple low-level environments (WinCE and iOS)
- Incorporating 3rd party libraries to be used in an embedded software development
- Maintain xServe, Git, Redmine, Hudson and other internal servers for development team
- Assist in drafting and disclosing intellectual property
- Scrum master for software development team in agile

Software Development Intern

QiG Group, Greatbatch Medical

Worked with other developers to create an OpenGL-based rendering engine

Tech used: C++, OpenGL, SVN, Matlab

Summer: 2011
Broomfield, CO

- Worked alone and in pair programming to write software
- Worked on the creation of an openGL-based rendering engine
- Participated in design meetings and code reviews

Boy Scout Canoe Trip Guide

Northern Tier National High Adventure Base

Summer: 2009,2010
Ely, MN

- Lead week-long canoe trips for groups of scouts
- Was a knowledgeable resource and role model to the crew
- Assisted with other departments and performs other duties when not on the trail

Education

University of Colorado at Boulder

Applied Mathematics

Minor: Computer Science

Boulder, CO
Graduated Dec 2011
GPA: 3.459

Other Projects

nccpipeband.org

- Rewrote website backend using php; including user log in system, user profiles/band roster, user permissions, restricted file access, events calendar
- As webmaster, maintain user lists and site pages
- Re-implemented the website again, using Joomla

Tic Tac Cubed

- Developed an iOS game for the App Store, based on a tic tac toe variant

Publications

Author on 2 Patents, and 2 Patent Disclosures

Leadership

Eagle Scout

Boy Scouts of America

- Excellent communication and interpersonal skills
- Ability to perform independently in many situations

Thanksgiving meal director

First Presbyterian Church

- Organized volunteers and planned meal for 2 years
- Meal served around 350 homeless each year, with over 100 volunteers

Misc.

- WWDC attendee
- Previously Wilderness First Aid and CPR certified
- Bagpiper