

Morgan K Davis

Santa Cruz, CA  
mkd@mkd.net  
(831) 419-8651

## OVERVIEW

I'm a software generalist and a multi-platform expert. I pride myself on being thorough and detail-oriented, and communicating exceptionally well. The majority of my professional experience has been developing desktop and mobile applications, however I have an immense interest in computer graphics and have put tremendous effort into cultivating skills in that field – ask to see my game engine!

## EXPERIENCE

### **Principal Software Engineer, Turtle Beach Inc., San Jose, CA — Feb 2020 – Present**

Leading software development across products and platforms.

- Leading development of a cross-platform C#/Xamarin project targeting multiple applications for iOS, Android, Windows, and macOS. Native modules are written in Objective-C, Swift, Java and C++.
- Working closely with engineering and product management stakeholders to define requirements and schedules
- Writing code daily

### **Software Development Consultant, Turtle Beach Inc., San Jose, CA — Jun 2018 - Feb 2020**

Providing technical expertise and code contribution for multiple successful product launches.

- Advising as a technical expert
- Writing code in Objective-C for iOS/macOS, C#/C++ for Windows
- Working closely with CTO & firmware manager to deliver multiple successful product launches

### **Senior Software Engineer, Innovation, Plantronics Inc., Santa Cruz, CA — Oct 2016 - Jun 2018**

Leading software development for pilot programs and core technology exploration. I acted as a technical hero&ambassador for the company -- performing internal and external technology demos and sponsoring hackathons.

- Working with IoT devices/communication protocols/multi-factor authentication/Bluetooth/Ultra wideband
- Writing code in Objective-C/Swift for iOS/macOS, C++ for Linux, and some Python web servers

### **Software Engineer, Innovation, Plantronics Inc., Santa Cruz, CA — Oct 2012 - Oct 2016**

Developing software for a small, multidisciplinary team exploring new ideas and technologies. The Innovation Team did things that were outside the comfort zone of the company as a whole -- we created many conceptual prototypes, developed strategic partner integrations, and created early product iterations. I used a breadth of technologies and programming languages on an almost daily basis.

- Working with IoT devices, communication protocols, Bluetooth, sensors
- Writing code in Objective-C/Swift for iOS/macOS, Java for Android

### **Software Engineer, AOptix Technologies Inc., Campbell, CA — Jul 2011 - Oct 2012**

Developing middleware, front-end, and core algorithm porting and optimization for an MFi iris and fingerprint recognition platform. I ported and optimized many image processing algorithms, used CoreImage and OpenCV to provide real-time iris & face finding functionality, and specified & implemented the 30-pin MFi serial communication protocol. I also created and skinned the native iOS app interface, and designed and implemented several manufacturing configuration and calibration tools. Mathematics and optical physics knowledge were used frequently.

- Working with OpenCV, CoreImage, communication protocols
- Writing code in Objective-C, C++ and ARM assembly for iOS
- Porting and optimizing image processing algorithms

### **Founder, MKD Software LLC, Placerville/Santa Cruz, CA — Jun 2001 - Jul 2011**

Developing free and shareware applications for the macOS platform. Several of my titles saw widespread popularity, including some achieving several hundred-thousand downloads and thousands of registered users. All operations were performed by myself including: application design and development, web and backend development, sales and marketing, and customer relations and support.

- Objective-C/C/Cocoa/Carbon for macOS
- PHP/JS/MySQL/HTML/CSS

## **EDUCATION**

B.S. Computer Science, 2011 – University of California, Santa Cruz

## **ENUMERATED SKILLS**

- Mathematics and Computer Science theory
- OpenGL, GLSL and associated technologies
- Cross-platform C++ development
- macOS & iOS development with Objective-C and Swift
- C#, .NET, and Xamarin development
- Exceptional written and oral communication skills

## **EXTRACURRICULAR**

- Developing a cross-platform game/rendering engine. Ask to see a demo and/or source.
- Astronomy photography
- Endless Raspberry Pi projects
- Downloading NOAA weather satellite images in my attic
- Modifying, maintaining and tracking a rotary Mazda