

# Michael Forester Hillendahl

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## **Firmware Engineer** seeking **full-time** role in **Southern California**

Seeking best fit to hone skills in collaborative environment.

### **Scholar**

Univ of Southern Cal  
BS Electrical Engr  
Viterbi School of Engr  
Class of 2010

### **Embedded Developer**

I2C • SPI • Serial • Parallel  
UART • JTAG • GPIO • Drivers  
Data Structures • Algorithms  
ARM • Atmel • Kiel • Altium

### **Versatile Coder**

C • C++ • Java • JS • OOP  
Python • Perl • Ruby  
HTML • CSS • XML • JSON  
VS • C::Blocks • Dev-C++

### **Human**

Musician • Performer  
Hiker • Climber  
Enthusiast • Tinkerer  
Son • Brother

## **Experience**

### **Electronics Engineer** at Marshall Electronics Inc (2010-2017)

- Bare-metal embedded C for video and ARM processors

### **Achievements**

#### Design

- Developed, maintained flagship product lines
- Designed feature-set, UI for next generation of devices

#### Development

- Automated time-intensive tasks, reduced overhead by over 95%
- Accelerated dev team's ability to launch new products

#### Efficiency

- Increased responsiveness by over 100% by rewriting key algorithms
- Maximized reliability and accuracy of core software components

#### Research

- Ensured market relevance via competitor and industry research
- Prioritized time/cost efficiency testing software and hardware options

### **Responsibilities**

#### Prototyping

- Implemented chip-level communication (I2C, SPI, parallel)
- Developed and demonstrated example features and UI designs

#### Implementation

- Wrote drivers for peripheral components
- Developed custom tools to automate repetitive tasks

#### Refinement

- Finalized feature/UI design
- Balanced value with projected implementation time

#### Production

- Interfaced with Testing team, optimized artifact resolution
- Documented unit preparation procedures for production team

#### Support

- Implemented new features and hardware for new products
- Implemented customer-specific design requests

## **Projects & Skills**

### **Mobile Dev • Android Phone**

- Established multiple dev/testing workflows
- Created various apps for Android device

### **Web Dev • Chrome Browser**

- Designed & implemented Google Chrome extension
- Achieved proficiency with relevant JSON, HTML, and JS

### **Game Dev • Windows OS**

- Languages: C, C++, Java, Ruby, Python, Perl, Batch
- Libraries: SFML, OpenGL, OpenAL

### **Hands-on**

Soldering, Assembly  
Woodwork, Metalwork

### **Equipment**

Oscilloscope. Multimeter,  
Function Generator

### **Strengths**

Leadership & Teamwork  
Motivated & Fast Learner