

Erik Meike

resume@yoerik.com (650) 485-3745 <https://yoerik.com>

Education

Harvey Mudd College Class of 2021. Major: Engineering. Relevant Coursework: Data Structures and Program Development, Principles and Practice of Computer Science, Digital Electronics & Computer Architecture, Introduction to Engineering Design and Manufacturing

The Nueva School Class of 2017. Relevant High School Classes: Machine Learning, Functional Programming, Design Thinking

Skills Python, C++, Javascript, Java, HTML, CSS, PHP, Android, WebGL, CUDA; **SERVER-SIDE:** Unix command line, MySQL; **SW TOOLS:** Dev Tools from Xcode to Vim with make; **EMBEDDED SYSTEMS:** AVR, Arduino, Raspberry Pi, BeagleBone Black, Propeller; CAN Bus, I2C, SPI, I-Wire, Serial; **HW TOOLS:** Schematic Capture, PCB Layout, Oscilloscope, Logic Analyzer; **FAB TOOLS:** 3D printer, Laser cutter, CNC Mill, 3D Modeling tool (Fusion 360, SolidWorks)

Employment

JITX - SUMMER 2018

- Four person startup creating automated PCB design system
- Modified and extended generation tool to automatically create 27 new parameterized designs including power converters and processors

PRENAV - SUMMER 2016, 2017

- Software development, hardware design, CAD for autonomous quadcopter monitoring startup
- Tested and recommended laser range finding systems for 3D imaging
- Designed and implemented timing critical RTOS systems
- Reported directly to CTO

QUICKLOGIC - SUMMER 2015

- Designed, built, and tested location dead reckoning system built for S3 sensor hub platform for low power GPS location monitoring systems in wearables and mobile devices
- Wrote sensor fusion algorithms, and data processing on FPGA systems. Built testing and simulation suite for system
- Reported directly to CTO

INTUIT - SUMMER 2014

- Lead programmer creating drag and drop website to streamline call center on-boarding process
- Programmatically parsed and validated data from Excel spreadsheet
- Reformatted data into XML, using client side javascript and then sent REST API calls to backend service
- Code is used as foundation for complete solution in use today saving millions of dollars annually

Projects

LEATHERBACK TURTLE MONITORING - SPRING 2015 - SPRING 2017

\$7000 in grants from Gordon and Betty Moore Family Foundation and Youth Activity Fund Grant from the Explorers Club

- With one student, constructed custom design, built, tested, and manufactured sensor packages in quantity
- For deployment with the Leatherback Trust in Costa Rica
- Low power electronics with custom PCB and code

SKYNOSE - QUADCOPTER AIR QUALITY MEASUREMENT - FALL 2014 - SPRING 2016

- Built sensor platform for quadcopter to create 3d model of air pollution
- Used Teensy 3.1 and many air quality sensors
- Visualized data on website with Three.js and in Google Earth with KML

Other Recognition & Leadership

HMC COMBAT ROBOTICS CO-PRESIDENT 2018-2019

FRC ROBOTICS - FALL 2013 - SPRING 2017

Control and Automation award - Silicon Valley Regional Championships (SVR) (2016), Programming award - Chezy Champs (2016)

Quarterfinalist & alliance captain - Sacramento Regional Championship (2016), Semifinalist - SVR (2016), Entrepreneurship Award - SVR (2014)

- Head of electronics of inaugural First Robotics Competition (FRC) team (Bot-Provoking, 4904) at The Nueva School
- Responsible for all control electronics on new robotic platform
- One of two key contributors to award winning CAN Bus-based control system
- Taught weekly 2.5 hour electronics class to team members bringing many from 0 to designing custom PCBs

CO-FOUNDER: Programming Club, FRC Team 4904, TEDx Youth Event Org Club.

EXTRA CLASS HAM RADIO LICENSE - AI6YT - LICENSED SINCE SEPT 2008