

# Christopher Smith

Computer Engineer

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<https://github.com/smithch>

(661) 341-0804

## SUMMARY OF QUALIFICATIONS

- Dedicated to providing quality solutions as a supportive member of a team.
- Strong management skills, demonstrated proficiency in leading the development of several software and hardware projects by completing on time and meeting requirements.
- Experienced in multithreaded network client/server applications, graphical user interfaces, design patterns, version control, microcontroller & FPGA firmware and PCB design/layout.

## PROFESSIONAL EXPERIENCE

### Computer Engineer @ NAVAIR NAWCWD – Point Mugu, CA *Airborne Instrumentation 2015 – Present*

- Computer Assisted Pointing system for aircraft mounted camera system utilizing Qt/C++.
- Complete hardware design of telemetry encoder, ten-layer circuit board.
- FPGA firmware to combine data streams from independent clock domains to one IRIG 106 compliant PCM telemetry frame.
- Embedded linux and Qt development for portable telemetry instrumentation data display screens.
- Member of the 2016 Innovation Challenge team. Implemented/trained multilayer neural network for obstacle detection for quadcopter.
- Custom systems control electronics for an optics flight pod using a PIC and solid state relays.
- Circuit board & firmware to test gravity switch components to certify use on safety device.

### Computer Engineer @ NAVAIR NAWCWD – Point Mugu, CA *Range Data Systems May 2009 – 2015*

- Developed desktop multi-threaded networking applications using C++ and C#.
- Graphical user interface development in WinForms, MFC and WPF.
- Wireshark dissectors in C and LUA for communication protocols.
- Troubleshooting and expanding physical network infrastructure.

### Electrical Engineering Intern @ Edwards AFB – CA 2008 - 2009

- Data logging and transmission application on Motorola microcontroller in C.
- Ground station software in Python and computer administration on PC 104 embedded computer.
- Configuration and installation of Ubuntu/Software defined radio for team members.

### USAF Aerospace Maintenance Journeyman (B1-b) @ Ellsworth AFB – SD 2000 - 2004

- Timed and specialized inspections of aircraft.
- General aircraft maintenance, aircraft documentation and operation of support equipment.

## SKILLS

- Schematic capture
- Printed circuit boards
- Verilog/VHDL/NIOS
- Microcontroller development C/C++
- Lab equipment
- Software engineering:  
C/C++/C#/Qt/Python
- Linux device drivers development
- Win/Linux/Android/Free RTOS
- Machine Learning Keras/Scikit
- I2C/UART/SPI/USB/CAN...
- TCP/IP & Ethernet
- IRIG 106 telemetry
- Scripting: LUA/TCL/DO/Python/Vimscript

## EDUCATION

California State University, Northridge – Northridge, CA

- Completed 30 units toward Masters in Electrical Engineering 2010 to 2016 – GPA 3.6
- Bachelor of Science degree in Computer Engineering Graduated 2009 – GPA 3.2