

Kelvin Silva

Cedar Rapids, IA

CONTACT

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EDUCATION

University of California Santa Cruz	2015-2018
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Bachelor of Science. Computer Engineering

GPA: 3.60 / 4.00

- C Systems Programming, Microcontroller Systems, GPU Programming CUDA

WORK EXPERIENCE

Software Engineer (Full-Time)	7/15/18 - Current
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Collins Aerospace (formerly Rockwell Collins) / Cedar Rapids, IA

- Context: Software Engineer for the GPS Embedded Module VII-2 (GEMVII-2) and Airborne SAASM Receiver (ASR) airborne legacy product line team. The GEMVII-2 is a GPS receiver which is placed into an aircraft navigation unit (host computer).
- Gather, Trace, and Implement, Systems Segment Specifications (SSS) and Software Requirements Specification (SRS). Implement, review Interface Control Document (ICD), Software Design Document (SDD). Implement, review Software Code, perform Unit Level test of software features, and system level test for the GEMVII-2 product.
- Implementations include Satellite Health monitoring, GPS Standard host computer communication protocol (GPS-059 standard), serial port interfacing with external Antenna Electronics Software and System.
- Developed GEMVII-2 product from Internal R&D to Customer Contract and Delivery.
- Programming in a Real time task execution environment architecture and interfacing with and debugging embedded hardware such as serial ports, A/D and D/A converter hardware. Concurrent style programming.
 - Knowledge of GPS system, GNSS, GPS Simulation Spirent, Kalman Filter
 - C, Jovial language (novice), SVN, DOORs, JIRA, Agile Scrum
 - Secret Clearance, Active

Software Engineer Intern (Full-Time)	7/15/17 - 9/9/17
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HackLabs Pty Ltd / Sydney, Australia

- Continued development on an open source project: penetration testing report generation tool SERPICO to fit company's report template.
- Improved flexibility of report generation by implementing hierarchical pattern to template data model, software debugging, implemented API endpoints for retrieval and modification of data.
- Ruby with Sinatra, DataMapper ORM, HAML, XSLT, Docker, MySQL, and Amazon AWS, Git

PROJECT

Indoor Autonomous Navigation System	1/1/18 - 6/15/18
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University of California Santa Cruz

- Technical Lead for an autonomous robotic car using Robot Operating System (ROS).
- Integration of Simultaneous Localization and Mapping (SLAM) algorithm, ROS navigation software, with LIDAR and other hardware.
- Testing and simulation in Gazebo.
- Python, C++, Git, Robot Operating System (ROS), Gazebo, Raspberry Pi, Arduino

SKILLS AND TOOLS

Programming:	C (Intermediate), C++ (Novice), Git
Hardware Embedded:	System on Chip, Oscilloscope, Serial Interface
Windows:	Windows 32 API (Win 32) (Novice), Winsock (Novice)