Jimmy L. Seto

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SKILLS

- **Languages:** C, C++, Typescript, JavaScript, MongodB, Angular, Node.js, HTML, CSS, Python, Bash, Matlab
- **Software:** Linux/Unix OS, Windows, VMware, Git, Visual Studios, Cygwin, PowerShell, Vim
- **Hardware/EE:** VHDL, Arduino, Breadboard, Soldering, Oscilloscopes, UART, I2C, SPI

WORK EXPERIENCE

Software Engineer **Raytheon Technologies** **Nov. 2018 – Present**

(Embedded C, C++, Unix, RTOS, GPS Receivers, Git, Jira, Agile/Scrum, Windows OS, PPC 460S)

- Developed a messaging middleware layer to enable gps receivers to send collected GPS data (Position, Navigation, Time, Tropospheric, and Ionospheric data) over UART
- Developed and updated existing APIs to allow commanding a gps receiver to perform different operations such as Signal Acquisition & Track and Measurement Corrections
- Integrated in house built ASIC with customer mezzanine board and developed software to troubleshoot hardware latency issues
- Created scripts to automate test setup. Added tests to ensure full code coverage and tested using VectorCast
- Automated the setup and configuration of computers using Cygwin & Bash scripts that are used to run test code for standard test equipment on Windows Operating
- Created Software Design Documentation for standard test equipment using flow and model-based diagrams

Controls Engineer **Daifuku America (Semiconductor Transport Systems)** **Nov. 2016 – Feb. 2018**

(Embedded C++, Prototyping, Arduino, I2C, SPI, Java, Matlab, Troubleshooting, Customer Support)

- IoT Prototyping and development using Java and C++ with Arduino development boards and sensors of a maintenance FOUP
- Wrote and presented technical documents, manuals, and datasheets outlining system hardware, software structure, and network topology. Coordinated with Intel and Japanese Engineers overseas.
- Troubleshooting and analyzing data from Daifuku's Storage Machines using tools like Matlab and Excel to detect equipment failure

PROJECTS

VoiceGengo.com (C++, Typescript, Angular, Node.js, HTML, CSS, Stripe Payments, OWASP, Socket.io)

- Designed and developed an online social tutoring website to help with Japanese and English language pronunciation.
- Frontend – Image Cropper, Calendar Time and Scheduling, Voice Recording, Sentence Parser, Forms, English and Japanese Language Localization, Mobile First Design, Google Charts, Youtube API.
- Backend – API Endpoints, JSON Web Tokens, XSRF/CSRF, Data Validation Middleware, Emailer, Stripe Payments Integration, Chat System, Password Hashing & Storage.
- DevOPS – Deployed on Google Compute Engine, Encrypted using Let's Encrypt.

Microprocessor (VHDL, ModelSim)

- Developed and implemented a simple microprocessor using VHDL that supported 4-states (Fetch, Decode, Exe, Store) with asynchronous reset on a Xilinx NEXYS2 FPGA board

Linux Kernel Device Driver (C)

- Created a device driver in Linux that lights up keyboard leds everytime a key is pressed

IoT MEAN App (C++, Arduino, Bluetooth, Data Collection, M.E.A.N Stack, Google Charts)

- Developed arduino microcontroller code in C++ and created a web service that controls an microcontroller to collect sensor data in real time.

1st Place Palais Senior Capstone Design Project Competition Winner (December 2015)

- Companion Aid uses Texas Instruments CC2650 Sensor Tag to enable elderly to live on their own and gives family peace of mind. Developed code for the CC2650 Sensor Tag that detects falls in real-time and alerts caregivers via email.

EDUCATION

Arizona State University **May, 2016**

B.S.E Electrical Engineering