Jonathan Zaturensky

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Education

University of California, Los Angeles – B.S. Computer Science – Los Angeles, CA (Sep. 2015 – Jun. 2019)

Experience

Qualcomm – Senior Software Engineer – San Diego, CA (Nov. 2022 – Present) Software Engineer – San Diego, CA (Aug. 2019 – Nov. 2022)

- Developed software implementing <u>5G Smart Transmit technology</u> to optimize uplink speeds and maximize throughput while complying with RF transmit power limits
- Led bring-up effort of Smart Transmit on new chipset while automating existing test scenarios and introducing new frameworks to vastly speed up and enhance feature validation process
- Architected shared software module implementing Smart Transmit technology requirements for both LTE and 5G
- Optimized power conversion lookups on modem, reducing processing time by over 40%
- Designed and implemented algorithm to detect provisioning errors, significantly decreasing troubleshooting time and providing critical customer issue support
- Pioneered large scale cloud data analytics effort to aggregate and analyze millions of logs to capture various key performance metrics and evaluate impact of new modem features
- Engineered and deployed multithreaded redesign of power calculation system resulting in 2.5x faster computation speed
- Implemented and calibrated motor driver enabling homing and positioning movement for 5G Fixed Wireless Access Platform, winner of Outstanding Fixed Wireless Access Solution at <u>2024 Network X Awards</u>

AirMap – Software Engineer – Santa Monica, CA (Mar. 2017 – Aug. 2019)

- Developed embedded <u>C++14 SDK</u> implementing AirMap APIs/services and utilizing MAVLink protocol to be deployed on UAV drone systems such as the Intel Aero
- Created and provided developer support for custom maps/servers that simulated the usage of core services to assist in successful customer and partner integrations
- Designed, developed, and released AirMap flight planning application for <u>DroneDeploy</u> with 4.8 rating
- Implemented and published AirMap's <u>Azure Maps plugin</u> enabling contextual airspace rules and map layers

Viasat (Global Mobile Broadband Division) – Software Engineer Intern – Carlsbad, CA (Jun. 2018 – Sep. 2018)

- Designed and implemented system to collect and transmit compressed operational data from <u>mobile satellite terminals</u> in restricted bandwidth environment and distribute it to central servers on the ground
- Created consumer sentiment insight tool for digital marketing teams to store, analyze, and visualize data from online reviews about Viasat and competitors using natural language processing

Green Hills Software (Integrity Security Services) – Software Engineer Intern – Irvine, CA (2016 – 2017)

- Participated in design and development of new architecture incorporating over-the-air firmware update service for V2V secure and efficient infrastructure by creating connection servers based on <u>OMA Device Management</u> protocol stack
- Created script engine framework that significantly improved and accelerated <u>DLM server</u> provisioning while also adding scriptable remote firmware update functionality to existing web applications
- Used GDB and assembly to reverse engineer and patch legacy library with new functionality, eliminating need to create new library and saving development time
- Developed scalable test framework and tools for multithreaded load test of REST API

Skills

- **Programming Languages:** C++, C, Python, Node.js, JavaScript, Java, Assembly, Unix Shell Scripts (Bash), HTML/CSS
- **Operating Systems:** Linux, Windows, macOS
- Databases: MongoDB, Redis, MySQL, PostgreSQL
- Software Applications / Frameworks / Protocols / Technologies: Visual Studio, Eclipse, Confluence, Jira, Azure, AWS, GDB, Git, Perforce, OpenMP, RabbitMQ/MQTT, SSL/TLS, PKI, OpenSSL, libcurl, TCP/IP, Docker, Vagrant, CircleCI, Jenkins, Kubernetes, Express, Nginx, Mapbox, jQuery, CMake, XML, JSON, Agile, TRACE32, pandas, GCP

Awards

- ^{1 st} Prize: UCLA Anderson Product Innovation Challenge
- LA Hacks 2018: Private Internet Access (PIA) Challenge Best Privacy Hack (Breach Tracker)