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## **EDUCATION:**

Electrical and Computer Engineering Degree, June 2015  
University of California San Diego, La Jolla, California

## **EXPERIENCE:**

### **Aerohive Networks, Staff Engineer, Network Development**

**Mar 2018 – Present**

- A3 Project (Authentication, Authorization, Accounting) PacketFence NAC device development
  - Use MySQL MariaDB, Catalyst framework, **Perl** and **Golang**
  - Enhanced Galera Cluster configuration and management for better HA solution
  - Design **REST API** for the embedded UI to GET and POST information on the backend
  - Develop **MQTT** client connection using Go enabling two-way communication between the NAC device and the Aerohive cloud (industry first practice that no other competitors offer)
  - Develop the license enforcement framework that allows the product to generate revenue
  - Design and develop a backup/roll-back function that allows the user to save/apply configuration using **GIT**
- Robot Framework for Automation testing
  - simulated RADIUS clients/server using **Python** for total controlled automation environment

### **Aerohive Networks, Senior Engineer, Network Development**

**Oct 2016 – Mar 2018**

- Design and develop the Standard **L2 GRE** tunnel on Aerohive's AP to connect with third party devices
- Develop a sFlow collector on HiveOS AP to support packet sampling and flow monitoring
- Design Private Client Group feature that utilizes AMRP (Aerohive Mesh Routing Protocol) allowing one SSID on the network to micro segment traffic based on client's password (**distributed system**)
- Active **DPI** engine signature maintenance and new library for ARMv8 platforms, a tool that is used extensively with the **firewall/ACL** solution

### **Aerohive Networks, IoT Development Internship**

**May 2016 – Oct 2016**

- Develop an application that uses one USB dongle to form the Zigbee network, an added feature of Aerohive's AP, patent filed under the title "IOT DEVICE MANAGEMENT USING MULTI-PROTOCOL INFRASTRUCTURE NETWORK DEVICES"
- Create connectivity from the local Zigbee network to an online application that controls local devices via MQTT and server hosted by AWS IoT
- Create a fog network between IP camera and Aerohive's AP, patent filed under the title "IOT DEVICE FOG NETWORKING OPERATION"

## **Software Engineering Internship at Advanced Ion Beam Technology (AIBT) – Fremont, CA**

**Jul 2014 – Aug 2014**

- Modify the GUI of a Microsoft Foundation Class (MFC) dialog based application using VC++, ATL
- Create a new OCX control that mimics the functionality of the spin button control made by National Instrument for better compatibility purpose from VS 2001 to VS 2005
- Enhanced function of the existing MFC dialog based application using Visual Studio (C++)

## **Internship at Advanced Ion Beam Technology (AIBT), Fremont (Electrical Engineering Related)**

**Jul 2013 – Aug 2013**

- Develop a USB controlled I/O device with one Pic-chip
- Develop a standard 12-button keypad to be an input source via a microchip controlled USB device
- Write the firmware for the USBIO device using MPLAB written in **Assembly**

## **SKILLS/KNOWLEDGE:**

- C++/C, Java, Perl, Python, MySQL, JavaScript, Golang and Assembly language
- TCP/IP, Linux, Distributed System, MQTT, DPI, RADIUS, AJAX, HTTP
- MATLAB, Android Studio, Visual Studio, IntelliJ, VMWare, Wireshark, JIRA, Git, Perforce
- Familiar with design patterns, MVC, software/search algorithms and data structures
- Agile project management
- Wireframe designs using Balsamiq, Mockplus