

Alexander L. Rivera

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WORK EXPERIENCE

Software Engineer 3 – Comcast NBCUniversal

Aug 2019 – Present

xFi Smart Home Client | Philadelphia, PA

- Orchestrated the introduction and use of MQTT within the xFi mobile application enabling bi-directional asynchronous messaging capabilities for the control of smart home devices.
- Designed an iOS MQTT library that uses AWS IoT to enable any vertical of the Comcast organization to publish and receive asynchronous messages.
- Created an iOS IoT library that interacts with the IoT Control Platform for pairing, querying and controlling of ZigBee, Wi-Fi and third-party devices within the xFi mobile application.

Software Engineer – Comcast NBCUniversal

July 2017 – July 2019

IoT Control Platform | Austin, TX

- Built a proof of concept iOS application that used existing infrastructure and AWS IoT Core to demonstrate the capabilities of MQTT for the controlling of Wi-Fi and third-party devices.
- Devised a strategy of using customer ID tokens as a method of authorization through use of an AWS custom authorizer to create IoT policies for customers.

xFi Web Client | Philadelphia, PA

- Spearheaded the implementation of accessible features for xFi smart home controls resulting in a uniform experience for all xFi users.
- Improved adoption and customer experience for xFi smart home controls by identifying and resolving flaws in the architecture of smart bulb integration.

GolfNow | Orlando, FL

- Reduced process overhead by 90% and provided autonomy for the GolfNow services team by creating an online portal to manage course partner domains on the GolfNow platform
- Automated the SSL certificate generation and renewal process for over 2,000 golf course domains resulting in the elimination of manual errors.
- Increased brand recognition and eliminated manual score updating by creating the World Long Drive mobile application for iOS and Android.

R&D Engineer – NASA

May 2016 – Aug 2016

Safety Critical Avionics Systems | Hampton, VA

- Built an object detection algorithm for an autonomous drone to avoid collisions during flight.

TECHNICAL SKILLS

Programming Languages – Swift, JavaScript, Python, Java, C, CSS, HTML

Software Development – iOS, React, Node.js, Lodash, Android, OpenCV

Amazon Web Services – IoT Core, Lambda, S3, DynamoDB, RDS, IAM, Amplify, CloudWatch

Platforms – AWS, Jenkins, Linux, GitHub, Splunk, Localytics

Wireless Protocols – MQTT, ZigBee, Bluetooth

EDUCATION

Temple University | Bachelor of Science in Computer Science | Philadelphia, PA