

DAO NGUYEN

EXPERIENCE

Comcast NBCUniversal: CORE Technology Associate

July 2016 - Present

- The CORE Technology program is a two-year rotational engineering and leadership development program that provides the opportunity to work with 3 different teams within Comcast NBCUniversal

Comcast, Watchwith: Software Engineer

January 2018 - Present

- Develop Force Extend, an **Angular** web application using **TypeScript** which allows real-time extensions for DVR listings' duration
- Implement Watchwith Runtime, a runtime environment for delivering enhanced content on the Comcast's flagship video platform (X1) using Watchwith's curated metadata and **pxscene** library
- Integrate the Watchwith platform with internal teams' products (NBC The Voice, Fandango) to enhance interactive content experiences on the X1 platform

NBCU, Global Media Operations: Software Engineer

July - December 2017

- Worked on detailed timing statistics of uncompressed IP Video stream to provide insight to the unique needs of the next-generation technology **SMPTE ST 2110-21**
- Built various **Node.js** microservices that allow broadcast engineers to keep track of millions of baseband and IP connections powering the broadcast system at NBCU
- Worked with public cloud (**AWS**), stood up CI/CD environments (**Jenkins**)

Comcast, Core Application Platforms: Software Engineer

July 2016 - June 2017

- Developed for CodeBig, a cloud-based API management proxy which provisions access control and capacity management for over 700 internal back-end services, handles 30+ billion requests/month
- Supported clients running high-profile applications during daily routine support and on-call
- Developed and deployed **Lua**-based API and self-service portal using **GraphQL** and **React**

Comcast, Data Center: Network Engineer

March 2015 - May 2016

- Deployed, monitored, and performed capacity planning for network nodes in both Comcast's National and Regional Data Centers
- Built an automation program to configure multivendor routers/switches for 20+ network engineers
- Developed a **StealthWatch** mapping to oversee traffic of Comcast Tier 1 critical applications

Drexel Wireless Systems Lab: Research Assistant

June 2015 - June 2016

- Designed commercial-off the-shelf (COTS) and **802.11n** protocol compliant testbeds for wireless security algorithm evaluation, penetration testing, and marketability
- Built a wireless security system that authenticates users at the physical layer (PHY) without transmitting encryption key
- Integrated reconfigurable antenna to enhance performance in varying propagation conditions

PROJECTS

Universal Kids Studio

October 2017

- Built a platform that allows kids to create their own stories using voice commands via Amazon Echo
- Developed a serverless architecture using **Amazon S3** for stories storage and **Amazon SQS** for mobile push notifications. The created stories were displayed on an iOS app.
- Won Amazon-sponsorship award for the best use of Amazon services

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EDUCATION

Drexel University

Double Major Electrical and Computer Engineering, B.S.

Graduated 2016, GPA 3.89/4.0

SKILLS

Areas of Experience

Cloud Orchestration/Automation

Full-Stack Web Development

Network Engineering

Video Distribution

Wireless Systems

Agile/Scrum

DevOps

Languages

Advanced: **JavaScript, Python**

Intermediate: **Java, Lua, SQL**

Familiar: **C/C++**

Frameworks

Advanced: **Express, GraphQL**

Intermediate: **Mocha, Lapis**

Familiar: **React, Bootstrap**

Tools

Advanced: **Git, Splunk, Linux**

Intermediate: **Wireshark, Ansible, AWS Services (RDS, Route53, Lambda)**

Familiar: **MATLAB, Api.ai**