# Randy Deng

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# **Experience**

### Citadel - Software Engineer

3/2022 - Present

### AWS Kinesis - Software Engineer II

8/2019 - 3/2022

- Lead and developed scaling component of On-Demand, a new capacity mode for Kinesis Data Streams that accommodates to customer workloads as they ramp up or down
- Designed, developed, and load tested component to prime thousands of proxy host caches with customer metadata in scalable and deployment-safe way
- Developed and refactored control plane code to increase throughput for internal APIs by 4x and reduce complexity when updating metadata stored in databases

### **GTRI CIPHER - Student Software Engineer**

1/2018 - 5/2018, 8/2018 - 8/2019

- Worked on Benign Agents Deployed for Automated Cyber Threat Representation (Bad ACTR), a software suite developed by GTRI that mimics malware activity patterns
- Designed and built Python Flask front-end for Bad ACTR to interact with backend malware mimic tools
- Tested machine learning models such as Markov Chains, Hidden Markov Models, and K-means to predict network traffic connections

### **AWS Kinesis - Software Engineer Intern**

5/2018 - 8/2018

Designed and developed component to audit usage-based bills for Enhanced Fan-Out feature

## **Education**

#### Georgia Institute of Technology, Atlanta GA

Masters in Electrical and Computer Engineering, GPA: 3.66/4.00

1/2019 - 7/2019

Bachelors in Computer Engineering, GPA: 3.84/4.00

8/2015 - 12/2018

Awards: Highest Honors, Faculty Honors, Deans List

Activities: The Hive Makerspace, Astronomy Club, Eta Kappa Nu (HKN)

# **Projects**

#### President of The Hive Makerspace

5/2018 - 4/2019

- Responsible for grand opening, hiring, operation, and maintenance of brand new, 3 floor makerspace with electronic/hardware tools and 100+ student volunteers
- Worked closely with Georgia Tech faculty and company sponsors to host events/workshops and bring in wide variety of tools and electronic components for students to use

### **RQ Docker Supervisor Template**

7/2019

Developed publicly available template on Github on how to start RQ workers in Docker using supervisor

#### Nanoscale Barcode Identification

3/2019 - 5/2019

■ Tested and optimized classification results using machine learning algorithms to correctly identify 5-length fluorescent DNA monomer sequences for molecular tagging

**Skills:** AWS, Java, Python, C++, Git, Bash/Shell, Distributed Systems, Cloud Infrastructure, Spring Framework, Flask, HTML/CSS, Jekyll