

Experience

Citadel - Corporate Actions - Software Engineer 1/2025 - Present

Citadel - Clearing & Settlements - Software Engineer 3/2022 - 1/2025

- Took complete ownership and redesigned various messaging workflows during the rewrite of the entire clearing & settlements platform. This includes working closely with end-users to redesign state management of each flow according to their needs, implementing dozens of message formatters/parsers to support various messaging formats, and building any missing features that can be reused in other messaging workflows
- Lead the design and implementation of automated settlement pairoffs, which facilitates systematic optimization of settlement obligations. This process reduces overall security and cash movements by ~60%, thus lowering the cost of settlement and saving ~3h of manual labor each day
- Implemented an auto annotation service to enhance the triaging of settlement failures and distinguish inventory risk from non-inventory risk for better operations handling, saving ~2h of manual labor each day

AWS Kinesis - Software Engineer II 8/2019 - 3/2022

- Lead and developed the 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 cache bootstrap logic on thousands of proxy hosts with customer metadata in scalable and deployment-safe way using S3

GTRI CIPHER - Student Software Engineer 1/2018 - 5/2018, 8/2018 - 8/2019

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

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

Skills: AWS, Java, Python, Kafka, Kubernetes, Git, Bash/Shell, Distributed Systems, Cloud Infrastructure, Spring Framework, Flask