

# Will Emmanuel

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## EDUCATION

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### University of Virginia, College of Arts and Sciences

*Class of 2015*

B.A. in Computer Science cum laude, cumulative GPA: 3.7, major GPA: 3.93

Distinctions: Echols Scholar, Dean's List, teaching assistant for CS 2110 Software Development Methods

### Georgia Tech, College of Engineering

*Class of 2021*

M.S. in Computer Science completed remotely, cumulative GPA 3.50. Specialization in Computing Systems

## WORK EXPERIENCE

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### Netflix

Game Systems, Senior Software Engineer

*December 2023 – Present*

- Build and operate foundational game services that support mobile and cloud game authentication, authorization, cloud saves, leaderboards, achievements, eventing, social experiences, notifications, and moderation
- Supported GA releases of a mobile game development SDK, 3<sup>rd</sup> party game backend API, and partner studio tooling
- Helped launch Netflix's Game product vertical, owning runtime APIs supporting over 100 launched games

API Systems, Senior Software Engineer

*November 2021 – December 2023*

- Owned and operated Netflix's tier 1 device API service, which receives millions of RPS peak traffic daily
- Led development of Netflix's first cross-platform device GraphQL service, which removed a runtime service layer, helped deprecate a decade-old monolithic API, improved device QoE metrics, and saved \$1M+ in annual cloud spend
- Migrated existing product canvases from deprecated API protocols to GraphQL, which included extensive API discovery, partner collaboration, A/B experimentation and performance testing
- Supported product launches such as live events, Netflix Gaming, preventing multi-household usage, and a TV UI redesign

### Amazon, Alexa Trust

Senior Software Development Engineer

*November 2020 – October 2021*

- Served as technical leader for the launch of Alexa Care Hub, a healthcare smart home subscription service. Implemented and launched the product across 4 engineering teams as one of two senior engineers
- Built the Care alert engine, a scalable notification service which processes in excess of 20k TPS of IoT traffic
- Launched Alexa 3<sup>rd</sup> party developer APIs to support emergency call providers, designing, implementing and integrating with partners in under 4 months
- Designed business metrics solution which ingested data from Redshift clusters, Amazon data warehouses, and service data streams. Spark EMR jobs consolidated data and output to weekly business reports for leadership
- Worked with device manufacturers to create and launch a new Alexa fall detection API

Software Development Engineer

*August 2019 – November 2020*

- Created and launched a compliance orchestration system used by over 300 services across Alexa. The service tracks data privacy compliance across the organization and handled in excess of 5k TPS of data deletion and portability requests
- Globalized Alexa's data portability system to support data subject access requests for the California Consumer Privacy Act. Streamlined service onboarding to reduce developer overhead
- Worked as one of the initial engineers at Amazon's HQ2 in Arlington. Helped to bootstrap the Compliance Automation Technology team from 1 to 20+ engineers

### Upside Business Travel

*January 2016 – July 2019*

Architect and full stack engineer

- Built and operated a flight alerting system. Alerts were routed to customers via email, SMS, a support CRM, and custom multi-app push notification service. The system processed about 30k flight alerts monthly
- Launched several versions of a white labeled iOS app. Worked on three versions of the shopping funnel, a live chat tool that connects customers to support staff, and checkout with Apple Pay

### Large Credit Union Mobile App (Client of CapTech Consulting)

*August 2015 – December 2016*

iOS engineer—built and supported a banking application with ~1.5 million active monthly users

## SKILLS

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- Cloud services (daily): AWS Solutions Architect Associate (2020) and Developer (2015) certified
- Distributed systems (daily): Java, Kotlin, JVM, Spring Boot, GRPC, GraphQL, Kafka, SNS/SQS, Lambda, Docker
- Databases (often): CRDB, Postgres, Redis, Elasticsearch, DynamoDB
- UI development (sometimes): React, Typescript, Ruby on Rails, HTML/CSS, iOS SDK, Swift, APNS, SwiftUI