

# Boyue Zheng

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## Education

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**Georgia Institute of Technology**

*M.S. in Computational Science & Engineering, GPA 3.8/4.0*

Atlanta, GA

*Aug. 2019 - May 2021*

## Skills

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**Programming:** Java, JavaScript, C++, Python, PHP, SQL, HTML/CSS, Go, Scala

**Framework:** Spring Boot, React, React Native, Node.js, Flask

**Database:** MySQL(XDB), MongoDB, Redis

**AWS:** S3, EC2, Lambda, DynamoDB

## Work Experience

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**Software Engineer, Meta Platforms, Inc**

*AI Security team*

Menlo Park, CA

*Feb 2023 - Present*

- Developed Model Pathprefix ACL Auto-rollout service for Model Soft Delete Gatekeeper service
  - Implemented model snapshot/checkpoint pathprefix fail close/fail open auto-rollout service in C++, Thrift and XDB. Added unit tests using GoogleTest.
  - Deployed Cron job and write python scripts with thrift-py to support auto-syncing and failure recovery of ACL from XDB to Configurator.
  - Automated fail close/fail open rollout to save Eng manual work and improve system security.

**Software Engineer, Meta Platforms, Inc**

*VR Media Platform team*

Burlingame, CA

*Oct 2021 - Feb 2023*

- Developed Creator Insights dashboard in Oculus Media Studio and provided creators correct and consistent insights
  - Designed and scoped the project. Led discussion with Media Content team and Data Engineers to align metrics.
  - Created scalable data pipelines using Dataswarm for 1/7/14/28D VR Video/Animation 10s View, Media Item Saved to VR, Total View Count and Creator Portfolio Visit. Reused in Oculus TV in headset.
  - Implemented back-end using EntQL, PHP and GraphQL; Front-end with date selectors and daily metric breakdown histogram using react.
  - Boosted Daily Active People by 27%.
- Developed features in Oculus Media Takedown tool which is an efficient tool for content reviewers to take down VR Video/Animation
  - Implemented an interface to query encoding details, i.e. Video Resolution, FPS, Bitrate, Encoding Exception, Missing Encodings which saves developers 1hr/week to check for them.
  - Added filtering options for media items, i.e. Media Item Title, Creator Name which saves reviewers 30min/week.
- Benchmarked 360 video transcoding performance, quality and memory usage with in-house ffmpeg package
  - Implemented the script with Python and made it reusable by different codecs, i.e. h264, vp9.
  - Reported and triaged accurate infra-side support. Reduced out of memory error rate from 5% to 0.
- Onboarded VR Video Ingestion pipeline to X-Product Video(XPV) and Unified MediaInfra API(UMA)
  - This is a teamwork and I mainly focused on UMA on Spherical video cubemap/download/basic pipelines and spatial audio pipeline.
  - Supported longer video up to 30 minutes with resolution 5760\*5760. Improved stability from 96% to 98%. Simplified encoding process. Promoted Encoding success rate from 92% to 100%.
- Improved team operational excellence continuously. Identified root cause of 5 false and repetitive alarms in VR Video Ingestion pipelines.
- Onboarded junior engineers to team tech stacks, provided them with helpful resources and tasks to ramp up.

**Application Development Engineer Intern, ADP**

*Authentication and Identity Management DevOps team*

Atlanta, GA

*June 2021 - July 2021*

- Created visualization Splunk dashboards with Splunk search processing language to continuously monitor and send alerts for 100+ Apps' authentication-related metrics at both infrastructure and App levels