

Christine Tsou

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EDUCATION

University of Virginia, School of Engineering and Applied Science
B.S. in Computer Science. GPA: 3.78 / 4.0

Charlottesville, VA
Dec 2017

SKILLS

- **Programming Languages:** Proficient with Java, Python, JavaScript/TypeScript; Experience with C#, Scala, PHP, Swift, GoLang
- **Web Applications:** HTML/CSS, XML/JSON, Django, Angular, ReactJS, NodeJS/NPM, Webpack, Electron, Selenium
- **Mobile Applications:** Android Studio, Gradle, Xcode, Cocoapods, React Native, Appium
- **Infrastructure/Monitoring:** Kubernetes, Google Cloud Platform, Helm, Envoy Proxy/NGINX, Prometheus, Grafana
- **Other:** Docker, GIT, UNIX/Linux, SQL, Protobuf, GitlabCI/Jenkins, Maven/Artifactory

WORK EXPERIENCE

Niantic (Server Engineer on the Core Infrastructure Team)

Bellevue, WA

Software Engineer II

Aug 2020 - Current

- Created a Kubernetes operator that enables SREs to dynamically update Envoy reverse proxy configurations in game clusters using Kubernetes custom resource definitions. The dynamic configurations allow game clusters to scale up and down without downtime.
- Built an admin console web application (via Angular) for the anticheat pipeline, a hard requirement for enabling game ops and admins visibility into player punishments issued; gathered requirements and investigated authentication/authorization solutions for the access control layer story of the admin console.
- Developed and shipped a MacOS desktop application implemented using Angular and Electron to manage server initiated challenges used in facilitation with our anticheat pipeline via REST API endpoints
- Investigated, documented, and established a company-wide process for integrating signed docker container images in GCP projects
- Improved scripts used to configure mutual authentication for services within a service mesh using the SPIFFE/SPIRE framework

Qualtrics (Full Stack Developer on the Digital Experience Team)

Seattle, WA

Software Engineer II

Nov 2019 - Jul 2020

- Optimized logic evaluation of targeting requests by moving from server-side to client-side evaluations which reduced latency by 2x
 - Led and implemented server-side code in Scala to return a simplified logic tree in the targeting response for client-side evaluation
 - Designed client-side logic evaluation in TypeScript to maintain parity with existing server-side behavior
- Led my team in the engineering org-wide initiative to deprecate and move out of the Monolith codebase; planned, scoped, and implemented a number of initiatives to facilitate the extraction process.

Software Engineer I

Mar 2018 - Nov 2019

- Redesigned the thumbnail generation workflow from server to client side by replacing PHP's wkhtmltoimage with html2canvas. This in combination with storing thumbnail images in Amazon S3 buckets reduced overall latency of thumbnail image retrieval by 4x.
- Led multiple key customer-facing features for the Qualtrics iOS and Android SDKs: designed and implemented a React-Native bridge that enables React-Native mobile applications to make API calls into the native Android and iOS Qualtrics SDKs; enabled customers to collect app reviews within their existing Qualtrics mobile SDK workflow on iOS and Android.
- Shipped the Web-Responsive Dialog, a primarily front-end feature, where I created a new editor in the portal using AngularJS and wrote JavaScript modules to be served and run on the customer's website for rendering the dialog client-side.

Microsoft Corporation (Data Group)

Redmond, WA

Software Engineer Intern

May 2017 - Aug 2017

- Used multithread processing in C# to improve the processing and performance of dumping SQL Server debugging output into a Dump Data Warehouse used to investigate issues across multiple crash dumps
- Streamlined the Dump Data Warehouse import pipeline by setting up a server to process crash dumps daily

PERSONAL PROJECTS

BigTuna (visit cyt3ea.github.io for a preview of UX mocks)

- Created UX mocks as a proof of concept in InvisionApp for an iOS application that collects restaurant user reviews and photos to help users decide and discover places to eat (imagine a Yelp x Instagram collab!)
- Iterated on the UX mocks by collecting feedback using the mocks and updating the UI