Christine Tsou

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EDUCATION

University of Virginia, School of Engineering and Applied Science   **Charlottesville, VA**

B.S. in Computer Science. GPA: 3.78 / 4.0   *Dec 2017*

SKILLS

- **Programming Languages:** Experience with Java, C#, Python, JavaScript/TypeScript, Scala/Protobuf, PHP, Swift
- **Web Applications:** HTML/CSS, XML/JSON, Django, AngularJS, ReactJS, NodeJS/NPM, Webpack
- **Mobile Applications**: Android Studio, Maven, Xcode, Cocoapods, React Native, Appium
- **Other:** Docker, GIT, UNIX/Linux, SQL, Selenium

WORK EXPERIENCE

Qualtrics (Full Stack Developer on the Digital Experience Team)   **Seattle, WA**

Software Engineer II   *Nov 2019 - Current*

- 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 and account for edge cases
- 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 with the extraction process:
  - Deprecated using PHP $_SESSION's as a cache and migrated to using Memcached as an in-memory cache
  - Outlined a Microservice Ownership Plan, which detailed all components my team owns in the Monolith and its dependencies
  - Extracted shared code into libraries that will be used by other microservices via Composer for PHP or NPM for JavaScript
  - Refactored code to remove all Monolith dependencies for our team's extracted service
  - Moved all of our front-end JavaScript files to load other dependent JavaScript modules through a CDN

Software Engineer I   *Mar 2018 – Nov 2019*

- Redesigned the thumbnail generation workflow from server to client side by replacing PHP's wkhtmltoimage with html2canvas thumbnail image generation. 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. This was key to unblocking React-Native mobile customers from onboarding to Qualtrics
  - Enabled customers to collect app reviews within their existing Qualtrics mobile SDK workflow on iOS and Android. Implemented the UI in AngularJS for opt-in to this feature in the Qualtrics User Portal and implemented the app review functionality in iOS and Android native code
  - Calculated and created a portal-side visual indicator to inform a user which minimum Qualtrics Mobile SDK version is required to run their selected features
- 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 to render 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

- 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
- To see a preview of the UX mocks, visit my portfolio page at cyt3ea.github.io