James Liu

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TECHNICAL EXPERIENCE

Google Inc. | *Software Engineer*
July 2018 – Present
- Full-stack engineer on the Google Cloud Billing Cost Reports team, delivering tools to help customers analyze their cloud spend.
- **Led design and development** and drove **cross-functional communication** across eng, UX, UXR, PM, and partner teams for multiple high-impact features, such as **resource-level billing export to BigQuery**, a project that received the **Cloud Tech Impact Award from executive leadership**.
- Completed migration of CSV export generation on the client to a new, **scalable server-side architecture**, unlocking the feature for the largest customers with multi-GB datasets.
- Made significant performance improvements on our pages, e.g. taking browser memory usage on large accounts from **3GB down to 750MB** and time to interactive from **34s to 8s**.
- Additional work includes pricing BigQuery export, shareable reports, and new data dimension types.
- These features reach **nearly 1,000,000 MAUs** and are used by **~85% of enterprise Cloud customers** to analyze over **90% of overall spend**.
- Guided multiple interns and provided technical and career mentorship, ensuring they successfully completed their projects on time.
- Extensive work in **TypeScript** and **Angular** frontends, and **Java** and **GraphQL** backends.

Google Inc. | *Software Engineering Intern*
May 2017 – August 2017
- Frontend engineer on the FIrebase Performance Monitoring team.
- Implemented a new, **patented, interactive chart** design for showing distribution densities, calculated from existing quantile-based data.
- Worked extensively with **AngularJS**, **D3**, and several proprietary Google engineering tools.

Yelp, Inc. | *Software Engineer Intern*
January 2017 – April 2017
- Full-stack developer on the Growth team.
- Developed new features on the main desktop site to drive app downloads and engagement, primarily in **Python** and **JavaScript**.
- Added the ability to send a business page from the web to a phone via SMS.
- Implemented several new check-in offer related features, including search result annotations, visibility on the business page, and sending offers to a phone.
- **Directly generated hundreds of thousands of pageviews** and **thousands of app installs** per month with these features.

TECHNICAL EXPERIENCE cont'd

Microsoft Corporation | *Software Developer Intern*
May 2016 – August 2016
- Participated in the Garage Internship Program, in which intern-driven teams work on new projects end to end in 4 months.
- Worked closely with the Office team to develop a new real-time polling feature within PowerPoint.
- Primary developer on the real-time backend, built with **Node.js** and **Socket.IO** and SOAP network interfaces, and contributed to the **Angular** user-facing app.
- Created an **Android** app in partnership with the City of Vancouver to promote public art around the city, using **C#** and **Xamarin**.

Broadcom Corporation | *Application Software Engineer Intern*
May 2015 – December 2015
- Implemented hardware acceleration for YUV video conversion in ARM and NEON assembly in a custom Android build, able to transcode **raw 1080p video in real-time**.
- Developed internal tools from scratch in C for generating image, video, and audio test patterns.
- Used WebRTC native code to implement audio encoding in a VOIP audio test application.
- Created a patch creation program for new firmware binary releases for VOIP desk phones.

University of British Columbia | *Undergraduate Teaching Assistant*
August 2014 – April 2016
- Taught **150+ students in weekly tutorials**, and designed and maintained tutorial content, keeping it up to date with the current course material.
- Answered students' questions online and in person during office hours, and graded exams, assignments, and online quizzes.

SKILLS
- **TypeScript**, **JavaScript**, Java, Python, C#, C, C++, ARM, and NEON (SISD/SIMD) Assembly
- **Angular**, **Node.js**, Express

EDUCATION
University of British Columbia | Vancouver, BC
Bachelor of Science, Computer Science
4.33/4.33 GPA in computer science courses