# Bryce Tham

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## Software Engineer | Design Thinker | Solutions Architect

**Software Engineer with 6+ years of experience building scalable, user-centric software solutions that deliver real-world impact.** Proven ability to lead full-stack development projects, drive cross-functional collaboration, and create technically robust products that meet complex business needs. Skilled in software architecture, API/SDK development, and web technologies, with a strong track record of delivering reliable solutions in fast-paced enterprise environments.

### KEY SKILLS

Software Architecture • Full-Stack Development • API/SDK Development • Performance Optimization • UI/UX Design
Web Technologies • Real-Time Media Processing • Test Automation • Data Management/Analytics • AI/ML Integration
Agile/Scrum Methodologies • Cross-Functional Collaboration • Effective Communication • Leadership/Mentorship

### TECHNICAL TOOLS

**Programming Languages** | JavaScript/TypeScript, Python, Java, C/C++
**Web Technologies** | HTML/CSS, WebRTC, WebAssembly, React, Node.js, Docker
**Test Automation** | WebdriverIO, Selenium WebDriver, Jest, Jenkins, CI/CD Pipelines
**Data Management & Analytics** | SQL/MySQL, Grafana, Kibana, Amplitude

### PROFESSIONAL EXPERIENCE

**Cisco**
**Software Engineer IV**                                                    November 2024 – Present
*Previously:* **Software Engineer II, III**                          August 2019 – October 2024

- Built a low-latency WebRTC media engine leveraging micro-frontend architecture for React-based Webex web applications, delivering real-time audio, video, and content sharing experiences to 30+ million monthly users.
- Developed and maintained robust, secure, and scalable RESTful and event-driven APIs in the Webex JavaScript SDK, facilitating seamless integrations with 300+ third-party web and mobile applications and services.
- Integrated and optimized AI/ML-powered audio and video enhancements such as noise suppression and virtual backgrounds, improving media quality and user experience across 20,000+ weekly meeting minutes.
- Engineered a WebAssembly-based Opus/H.264 media processing module to extend Webex web client compatibility across diverse network and browser environments, expanding access to 2+ million new users.
- Led the design and deployment of a test automation framework using WebdriverIO, automating 30%+ of cross-browser and cross-platform tests, integrated with CI/CD pipelines to ensure release quality and rapid delivery.
- Worked directly with customers and cross-functional teams to troubleshoot critical issues during a 300%+ surge in Webex usage amid the COVID-19 pandemic, maintaining service reliability and high customer satisfaction.

**Visa**
**Software Engineering Intern**                                          June 2018 – September 2018

- Delivered full-stack solutions for internal DevOps platforms, enhancing operational efficiency for 17,000+ employees using agile/scrum methodologies and iterative feature development.
- Automated compliance attestation workflows using ServiceNow APIs, streamlining CMDB certification for 100+ configuration item owners and improving audit readiness.
- Normalized and optimized backend databases for data integrity, reliability, and scalability using SQL and database design best practices, supporting data-driven decision making.

**UC Irvine**
**Programmer Analyst Intern**                                          April 2015 – August 2017

- Collaborated with OIT and data warehouse teams to design and maintain scalable backend database systems supporting large-scale data analytics, reporting, and business intelligence needs.
- Analyzed and generated detailed reports for 150+ database tables and ETL jobs, facilitating a successful migration from Talend to Informatica ETL platforms while ensuring data accuracy, integrity, and performance.
- Developed and tested 60+ Informatica ETL mappings, sessions, and workflows to support the legacy operational data store conversion project.

### Webex Web Client | Cisco

- The Webex web client is a fully featured browser-based meeting experience simplifying access and boosting adoption among hybrid and remote workers.
    - Connected Recognition, Webex Playtime People's Choice

### Elevate | Oracle Cloud Innovation Accelerator

- Elevate is a mobile platform assisting formerly incarcerated individuals with job applications, addressing technical literacy and social stigma barriers.
    - 1st Place, Google Prize, Palantir Prize, Facebook Honorable Mention

### QuizBot | Stanford Interaction Design Lab

- QuizBot is a conversational chatbot enabling students to study via natural-language interactions, enhancing engagement and retention.
    - ACM CHI Accepted Paper

### The Smart Worker | UCI Institute for Software Research

- The Smart Worker is an augmented-reality training tool providing just-in-time support for factory workers, reducing errors and improving productivity.
    - UROP Fellowship Award

### Bubble Buddy | Autism App Jam

- Bubble Buddy is a web-based virtual communication companion supporting young children with autism in emotion recognition and conversational skills.
    - 2nd Place, Hype Award

### UCI Circle K Website | Circle K International

- The UCI Circle K website is a robust resource hub for members and administrators to access and maintain club information efficiently and effectively.
    - 1st Place Outstanding Club Website, Distinguished Appointed Board Officer

## EDUCATION

**Master of Science (MS) in Computer Science**
Specialization in Human-Computer Interaction
Stanford University

**Bachelor of Science (BS) in Computer Science**
Specializations in Information and Algorithms, *summa cum laude*
University of California, Irvine