

# JOSHUA LO

## SENIOR SOFTWARE ENGINEER

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### KEY ACCOMPLISHMENTS

#### SOFTWARE DEVELOPMENT

- Eliminated a system bottleneck limiting room capacity of a \$351M a year live video and chat platform by identifying the issue and developing/implementing a plan to separate chat components out from an overloaded Flash client and media server
- Migrated 33% of business logic out of a legacy stateful monolithic Flash Media Server application into stateless distributed microservices for a system that serves over 200,000 live video streams an hour to 40 million unique daily visitors globally

#### LEADERSHIP

- Built a talented and cohesive team of 6 - leading them through phases of iterative product development which resulted in acceptance into the 9Mile Labs accelerator program, the final stage of TechStars, and an acquisition in 2016

#### ACADEMICS

- Achieved M.S. Computer Science and Software Engineering with 3.9 GPA while working full-time

### EXPERIENCE

#### ACCRETIVE TECHNOLOGY GROUP

Seattle, WA  
Jan 2013 – Sep 2016

##### SOFTWARE ENGINEER

Accretive provides a high-definition live streaming video and chat platform that delivers over 200,000 streams an hour to 40,000,000 unique daily visitors across the globe and generates over \$351M a year in annual revenue.

- Eliminated bug caused by Flash Media Server's XML parser that saved the company \$50,000-\$100,000 per month
- Developed RESTful microservices using Node.js, redis, and MySQL to manage the state of a complex system (rooms, users, access, stream urls, chat, etc.)
- Implemented a chat service to handle 3,000,000+ chats/day and enforce complex business rules (user access levels, direct messaging, system messages, etc.)
- Provided owners with real-time statistical insight into the business by created reports and dashboards using logs, MySQL data, Splunk, PHP, and HTML/CSS
- Reduced team overhead by 50% by automating repetitive processes through build scripts (AppleScript, Makefiles, Bash) and dev environment configuration tools (PHP)

#### GLOBATOM

Seattle, WA  
Jul 2016 – Mar 2017

##### SENIOR SOFTWARE ENGINEER

Globatom is a logistics platform that provides shippers with better visibility into their supply-chain through real-time tracking and asset monitoring (temperature, light, humidity, shock) as well as predictive route analytics.

- Managed a product development team of 8 – applied agile and scrum processes to an ad-hoc team, increasing velocity and improving project visibility for owners
- Developed 50% of the backend code including the core application (Laravel, PHP, PostgreSQL) and 6 microservices (node.js, Azure IoT) that consume 3<sup>rd</sup> party vessel and IoT sensor device tracking APIs and streams
- Managed relationships with customers and vendors, and led the engineering team through participation in Microsoft's IoT accelerator

## **AIRTUS CO-FOUNDER, CTO**

*Seattle, WA  
Aug 2015 – Jul 2016  
(Acquired by Globatom)*

Airtus was acquired by Globatom Inc. in 2016. Airtus was a logistics platform aimed at making private air cargo carriers more accessible to enterprise shippers. The platform provided a marketplace for shipping rates, unified booking interfaces between carriers, and provided compliance guidelines.

- Led a team of 6 through the incremental development of a product – starting at the customer, working closely with 3 air cargo managers and 2 freight forwarders, testing assumptions, learning and pivoting when appropriate
- Developed platform using Node.js, React, HTML/CSS, MongoDB, and Heroku

## **SYNCED.FM CO-FOUNDER, CEO**

*Seattle, WA  
Mar 2017 – Present*

Synced.fm is a platform that adds synchronized annotations and reddit style discussions to any playable media presenting users with related content and concept clarifications while the media is played.

- Developed a native iOS podcast application, web interface, and server components to enrich the podcast experience using Swift 3, Xcode, Node.js, react, and MongoDB

## **XVOKE LEAD ENGINEER**

*Seattle, WA  
June 2013 – Aug 2015*

Xvoke is a promotional marketing company that provides direct customer engagement through events such as city-wide scavenger hunts, half-time events, and contests.

- Developed SMS based scavenger hunt platform, event landing page generator, social media based popularity contest, and participant tracking/communication tools with Node.js and MongoDB
- Incorporated 3rd party APIs such as Facebook Graph API and Twilio SMS API

## **MSNBC.COM SOFTWARE ENGINEERING INTERN**

*Seattle, WA  
Jun 2012 – Sep 2012*

MSNBC.com is a website that provides news coverage and political commentary. They are a primary source for following presidential elections.

- Developed a real-time verification tool using C# and ASP.NET MVC to compare incoming race data (candidates, votes, winners, etc.) from NBC to data that exists in each stage of msnbc.com's data rendering lifecycle, adjusting for latency and presenting an overall comparison as a heat map

## **EDUCATION**

### **UNIVERSITY OF WASHINGTON M.S. COMPUTER SCIENCE AND SOFTWARE ENGINEERING**

*Bothell, WA  
Sep 2012 – Jun 2016*

- Focuses include: software architecture, distributed systems, machine learning, development methodologies
- Technologies: C/C++, MySQL
- 3.92 GPA

### **UNIVERSITY OF WASHINGTON GRADUATE CERTIFICATE IN SOFTWARE DESIGN AND DEVELOPMENT**

*Bothell, WA  
Sep 2011 – Jun 2012*

- Bachelors equivalence
- 3.95 GPA

### **UNIVERSITY OF WASHINGTON B.S. CIVIL AND ENVIRONMENTAL ENGINEERING**

*Seattle, WA  
Sep 2003 – Jun 2007*

- Focuses include: environmental hydrology and hydraulic engineering
- Certificates/Licenses: Engineer-In-Training
- 3.52 GPA