ERIC TSAI Software Engineer

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Objective

Full-time software engineering in interactive media

Skills

LANGUAGES
Java
C#
C++
Dart

FRAMEWORKS
Unity
Spring
JUnit

SOURCE CTRL
Git
Perforce

Dev Tools
Unity
IntelliJ
Visual Studio
Jira
Confluence
CloudFoundry
Jenkins
Slack
Git CLI

Platforms/OS
Mac
Linux
Windows

Interests

Game AI
Game Dev

Education

Carnegie Mellon University, Entertainment Technology Center, Pittsburgh, PA
Master of Entertainment Technology   May 2016

University of Virginia, Charlottesville, VA
B.S. Computer Science   May 2014

Employment

Google / YouTube Shorts - Software Engineer [Java, C++, Dart]
August 2020 – Present ▪ Mountain View, CA
- Set up a pipeline to index a Youtube Shorts risk signal from Kapla/Duplo (ML systems) into various databases to prevent abuse of Shorts re-upload spam
- Developed full set of emoji reaction functionalities on Stadia to improve user engagement
- Designed & implemented a Stadia recommendation system to auto-suggest free games based on trending stats, user preferences, and region
- Scaled and normalized revenue metrics for AdMob so publishers could compare metrics on a standard timeframe (months)
- Added reporting of skewed revenue metrics, ignoring revenue flucations, so publishers could receive revenue data 2 days faster on AdMob

Amazon - Software Engineer [Java, C++]   https://github.com/alexa/alexa-auto-sdk
April 2018 – January 2020 ▪ Sunnyvale, CA
- Added features and fixed bugs on the Alexa Auto SDK which integrates Alexa into vehicles
- Cooperated with 3 different teams to design standard metric conventions and test end-to-end metric systems for direct OEM partners to upload metrics
- Implemented Java, C++ modules that capture latency + vehicle metadata from the Alexa Auto SDK and upload to Amazon CloudWatch, Amazon EMR, etc.

General Electric Digital – Software Engineer [Java]
September 2016 – April 2018 ▪ San Ramon, CA
- Developed a common analytic framework using Spring Boot for data scientists to run analytics on the industrial Internet of Things (IoT) through the Predix platform
- Created a runtime library to deploy analytics from the cloud to thousands of off-site assets
- Wrote Java+Bash scripts to convert all datasets from DEV to PROD for backwards compatability

Projects

Pathfinding & Autonomous AI - Game Programmer [C#]
Fall 2015 ▪ Pittsburgh, PA
- Created a Unity game where each enemy AI had autonomous movement and pathfinding
- Added autonomous steering and obstacle avoidance by raycasting and calculating momentum
- Programmed and optimized A* pathfinding so multiple enemies could concurrently run towards a moving target across a 100x100 grid with obstacles

An Ant's Life VR - Game Programmer [C#]
Fall 2014 ▪ Pittsburgh, PA
- Developed an Oculus VR game in Unity using a PS Move for natural steering movements
- Implemented autonomous AI steering for fluid flocking behaviors and group movement
- Published an extended abstract of the game on ACM's digital library