DANIEL TRINH

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EXPERIENCE

Unity Technologies   *2020-present*

Senior Software Engineer IC7, Full Stack

Technical lead for Unity Monetization Trust & Safety department. Led eight engineers across two teams on the technical direction of ads moderation and publisher facing UI tools.

Worked with engineers, product managers, and UX designers, delivered Ad Controls, a tool to increase transparency and control of ads for publishers. Utilized React and JavaScript for the fronted. Golang, Kafka, MongoDB for the backend. SQL, python, Druid for the data query layer. Typescript, Node.js, playwright for rendering ads.

Developing a data lake of ads for feeding into automated ML to detect explicit content in ads, utilizing open source models. Goal is to improve KPI of percentage of ads that have been reviewed, via automated or manual detection, thereby reducing the chance end users or publishers will accidentally witness inappropriate ads.

Unity Technologies   *2017-2020*

Senior Software Engineer, IC6, Backend

Built a fault tolerant ad auctioning system, utilizing Golang, Redis, MongoDB, handing tens of billions of events a day. The auction system is a core system at Unity, and processes hundreds of millions of dollars in net revenue a year.

Developed a general purpose boolean logic rule engine for filtering incoming and outgoing ad requests, handling over five million queries per second across the service. Written in Golang, utilizing compressed bitmaps, BTrees, Radix trees.

Designed and developed an AB testing system for segmenting traffic and labeling events within the ads-auctioning backends, for evaluating revenue and user retention impact.

Optimized expensive parts of Golang ad serving infrastructure using profiling and code analysis, saving millions of dollars in recurring infrastructure cost a year.

EXPERIENCE (CONT.)

BrightRoll (Yahoo!)   *2016-2017*

Software Engineer, Data

Developed an in house OLAP system for business analytics with Druid, Scala, Puppet, and AWS. Gained operational experience on an existing Hadoop, HBase, and HDFS cluster that spanned three data centers and ingested over 10 Billion events per day.

BrightRoll   *2014-2016*

Software Engineer, Backend

Built internal APIs to power UIs, and external APIs for third party customers using many different technologies, including Scala, RoR, Elixir, Solr, ElasticSearch, MongoDB, and MySQL, running on AWS.

RightScale   *2011-2014*

Software Engineer, API & Test Automation

Designed, implemented, and maintained a 900,000 SLOC RoR based public HTTP API for exposing Cloud IaaS functionality. Occasionally fixed bugs in a Backbone.js based UI.

Developed a Ruby HTTP testing framework to test public RESTful APIs, replacing an existing YAML based framework. Automated browser UI testing using JQuery, Ruby, and Selenium.

EDUCATION

Bachelor of Science, Computer Engineering
University of California, Santa Barbara (UCSB)

SIDE PROJECTS   *github.com/daniel-trinh*

TypeScript

- Built a closed source node.js puppeteer script with CRON to automatically reserve tennis courts, scrape email for reserved tennis courts, and update calendar with reserved courts, locations, and times. Utilizes a third-party service to circumvent reCAPTCHA.

Golang

- Developed a CLI GUI IRC client for filtering duplicate messages from Twitch chat streams.