

SOFTWARE ENGINEER**EXPERIENCE**

Artech LLC @ Google*Software Engineer (Contract)**Oct 2023 - Present*

- Rewrite backend for a Python research publication web app using internal Google Java frameworks, database, and infrastructure (Guice, Spanner, Protobuf, etc.), allowing integration with internal tools and increasing research org adoption

Electronic Arts*Gameplay Software Engineer**May 2021 - Mar 2023*

- Battlefield Mobile - Worked in Unreal Engine 4 using C++ and Blueprints focusing on weapon gameplay
 - Fixed weapon and animation state for sniper bolt, added canceling aim input, and improved shell casing particle system
 - Implemented weapon perks based on designer requests, such as increased spotting duration and swapping projectiles
 - Empowered designers by exposing C++ gun firing logic in Blueprints and armor types with Gameplay Tags
 - Fixed reload camera/ADS animation/weapon spread bugs, modified view to Horizontal FOV+ and added a UI slider setting
- Unreleased Star Wars 4x Multiplayer Title - Unity C# client and a Typescript server, deployed on GCP
 - Defined and implemented full stack inventory features: out-of-resource flows, random reward chests, and selectable reward chests. Handled client prediction, added test coverage, and updated game design data
 - Designed and implemented inventory bot behaviors using behavior trees to assist in load tests for scalability
 - Enhanced troop, hero, and buff systems to add troop march and troop capacity limits, including hero passives

Sony Interactive Entertainment*Software Engineer II**Mar 2018 - April 2021*

- Worked on PS5 Official News, a Spring + React app on AWS for Sony and partners to manage posts and campaigns
 - Learned React to write components for searching/listing data, validated complex rules, and utilized Redux and Jest
 - Used OAuth and gRPC to wrap internal APIs for a public site, set up Okta users/roles in SQL, used Elasticsearch for search
- Designed and implemented a voucher code generation system with new business rules, better performance, and encryption
 - Devised a migration plan for 4.2B legacy voucher codes with minimal application downtime
 - Optimized voucher code migration job's runtime from several months to a little over a week
- Worked on a Java + Spring web app for voucher codes and supported the effort to split the monolith into microservices
 - Added features to the app (e.g. sending emails with AWS SES, downloads through AWS S3 or SFTP) and seamlessly shifted the app to use AWS over self-hosted data centers. Refactored secret management code to reuse across various apps.
 - Built a new microservice to securely deliver voucher codes to partners; scaled up from 900K to 10M codes per order

GumGum*Software Engineer**Sept 2016 - Feb 2018*

- Visual Intelligence (VI) - Java + Spring web app using computer vision to detect brand value in social media images
 - Worked with a big data pipeline ingesting ~15M posts daily through AWS Kinesis, Apache Storm, AWS S3 and Elasticsearch
- Developed a new data pipeline to ingest ad publisher images into VI, upgraded Java consumer of GNIP (Twitter data) to 2.0
- Rewrote image/analytics endpoints of the VI API to use a common query filter so user searches carried across pages
- Scripted in Python to make reports (top keywords, Sports Sponsorship analysis), modify Elasticsearch data, use 3rd party APIs

UCI Office of Information Technology*Programmer Analyst II, Student Financials**Jul 2015 - Sept 2016*

- Migrated data to the Ellucian student system (SQL/Oracle), added variable rate loans in Java web apps (Spring, Jasper Report)
- Scripted Bash job to securely transfer (SFTP) and archive reports from Bank of America to school departments

*Student Programmer**Dec 2012 - Jun 2015*

- Developed a Java + Spring + Hibernate web application to allow staff to manage lab fees for academic quarters
- Wrote SQL and Bash scripts to migrate and convert 100+ tables from the old financial system

EDUCATION

University of California, Irvine (*Cum Laude*)*June 2015*

- B.S., Computer Science; B.S., Software Engineering

GPA: 3.8

SKILLS

- **Languages:** Java, C#, C++, Javascript, Typescript, Python; SQL; Bash; HTML/CSS
- **Tools:** Unity, Unreal Engine 4; Git, Perforce; UNIX; Spring, Hibernate; React; AWS; Selenium; Elasticsearch