JOHNNY CHABIN
Software Engineer

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EXPERIENCE

AMAZON.COM, INC.   **Lehi, UT**
Software Development Engineer   **2022-Present**

- Developed code and infrastructure for Amazon Translation Management Services (ATMS), a service for large-scale translation. ATMS serves around 6000 monthly users and about 400 companies, and processes one billion words each month for translation.
- As oncall, responded to and solved customer issues expeditiously, and addressed and solved dozens of high-severity alarms. Wrote and executed multiple MCMs (Model Change Management), all successfully.
- Tracked and organized tasks and projects as scrum master for the ATMS TOTal team, in addition to Software Development Engineer duties.

Selected Project Experience

- Migrated the entire ATMS spell checker service onto a new database engine, which involved refactoring the majority of the handlers' code, recreating all the existing infrastructure and creating a custom manual migration data tool with a deduplicator as there was no upgrade path between these two engines.
  - o Successfully re-wrote the code without any downtime before service was forcefully terminated.
  - o Improved overall endpoint latency by 50% with multiple optimizations.
- Modified the mass insert endpoint to send data to a separate thread for efficient background processing, using S3 and SQS, preventing timeouts, system-wide performance issues, and significant data loss.
- Identified an issue with our monolith repository, where a compiled and committed JAR was making some dependencies unmodifiable. Rebuilt a version of this JAR excluding those dependencies, finally unblocking a customer export issue.
- Reverse-engineered a method for obtaining auth tokens for the ATMS custom authorization system from within integration tests, then wrote an API Gateway Lambda Authorizer to redundantly validate these same tokens.

GAME DEVELOPMENT

Online Racing Game   **2017-Present**

- Small ThreeJS web game, with tilt controls on mobile, a map editor, and google cardboard VR support with up to 50K unique users annually.

Asteroids Game   **2021-2023**

- JS/Canvas web game, using players' phones as controllers and a single computer as a shared screen.

2089   **2024**

- Godot game entry for the 2024 GMTK game jam. Primarily an experiment in advanced graphics under a strict time limit, as well as unorthodox game design/game loops.

More projects can be found on https://johnnychabin.com.

EDUCATION

BACHELOR OF SCIENCE IN COMPUTER SCIENCE **Boulder, CO**

University of Colorado Boulder **August 2020 - July 2022**

- Graduated early due to AP credits and concurrent enrollment

SKILLS

- Full Stack Development
    - HTML/CSS/JS, React, Cloudscape
    - NodeJS, Express, Java, Spring Boot, Python
    - MySQL, ElasticSearch, MongoDB
    - AWS
- Web Game Development
    - ThreeJS, Canvas
    - Google Firebase or NodeJS/Python WebSockets
    - Google Cardboard-compatible VR
    - Both mobile and PC interactable
- VR Development
    - Unity/Godot/Unreal OpenXR plugins
    - ThreeJS Stereoscopic Camera + Tilt Controls
- Graphics Development
    - OpenGL with C/C++
    - Shaders written in GLSL, Godot Shading Language, Unity HLSL, Blender Shader Nodes
- ABB RobotStudio 1 Certified
- Physics Simulation Development
    - Impulse-reaction-based physics engines for realtime games
    - Inverse kinematics for realtime using Jacobian as solver
    - Accurate light models for detailed fractal pathtracing, including camera lens/aperture shape

REFERENCE

James Russell

Software Development Leader **Amazon.com, Inc.**

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