DYLAN HOUSE

dylan@thedylanhouse.com
(951) 264-7622

TECHNICAL SKILLS

Expertise	**Web Services** (API, Back-End, Distributed Systems, Networking, Security, CI/CD)
	Video Games (Animation/Gameplay/Event Systems, Content Pipelines, Tooling)
Programming Languages	**Java**, **TypeScript, C++, C# (C Sharp), Python**
Tools and Technologies	**AWS** (CDK, SAM, CloudFormation, CloudWatch, CodeDeploy, DynamoDB, DAX, VPC, ECS, Lambda, EC2, Gateway, S3, SQS, SNS, Elasticache, Secrets, Route53, Private Link, Load Balancer, Security Groups, Redis, Cloudfront), **.NET**, **NodeJS**, **ThreeJS**, **Docker**, **Github Actions**, **Travis CI**, **Git, Perforce**, **Unity**, **Maya**, **3D Blender**, **Photoshop**, **Unix**, **Windows, Visual Studio, JetBrains**

WORK EXPERIENCE

Software Engineer	**Amazon**	February 2022 – Present

Working with a team at Amazon Luna that's focused on bringing their existing Game Publishing, Offer Management, and Customer Policy services into new regions.

- Modeled and provisioned infrastructure for new regions, lowering latency and increasing availability of services.
- Integrated the new infrastructure with CI/CD pipelines, optimizing developer operations through automated tests, deployments, and alarms.
- On-boarded to external partner services in new regions, resulting in parity of service features.

Worked with a team at Amazon Alexa that was focused on launching a second version of the Alexa Proactive Notifications API.

- Lead the development of the Notification Management service, resulting in a 1000 TPS service.
- Co-developed and managed project plan for 6 engineers, helping the team to achieve launch in 5 months.
- Mentored junior engineer through security review of the service, resulting in passing certification.

Software Engineer	**Amazon**	July 2017 – October 2021

Worked with a highly cross-functional team at Amazon Alexa that was focused on building the 3D character animation system for My Loft video game – exclusive to Echo Show and Fire TV.

- Lead the development of the real-time character system, achieving 50% reduction in download speeds of assets and 38% reduction in device memory footprints – compared to more naïve solutions.
- Lead the development of the character test tool, enabling quicker iteration of thirty character models, hundreds of animations, and thousands of lines of dialogue.
- Lead the development of the character lip-sync animation data pipeline, streamlining the data generation process.

Worked with a cross-functional team at Amazon Alexa that was focused on developing the non-player character AI for Ticket to Ride, a companion skill to the boardgame.

- Implemented a stateless web-tier for managing player turns, optimizing on server costs and failures.
- Lead the development of the AI, resulting in an NPC that chooses its next "best" move on its own.
- Lead the development of the AI test tool, enabling quicker and more focused iteration of the feature.

Worked with a cross-functional team at Amazon Alexa that was focused on developing games and game toolkits for public developers.

- Developed i18n framework for Litexa, an Alexa skill development toolkit, enabling the ability to deliver localized content to customers.
- Developed and open-sourced the GameOn SDK, a NodeJS-based SDK for adding leaderboards to games, leading to more engagement from players.
- Attended GDC 2019 and demonstrated GameOn SDK at company booth, garnering client leads.
- Founded and developed team's first CI/CD pipelines.
- Established operational dashboards for the games for on-call developers.

PATENTS

US Patent 11250857   **Polling with a Natural Language Interface**

EDUCATION

B.S., Computer Science   **University of California, Davis**   *March 2017*