

Warren Veerasingam

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Pixar Animation Studios | San Francisco, CA

Senior Software Engineer

Sept 2022 - Present

- Designed and implemented an AI-powered search engine for shot and model retrieval for animators. Previously, shots and models were manually tagged and inserted into the database. This pipeline implementation eliminated manual work and improved the search results
 - This reduced search time for animators and modelers, increasing efficiency and productivity
- Revamped Pixar's development workflow with CICD practices, transitioning from manual to automated build and deployment. Additionally, refined management of secrets and configuration files
- Pioneered the development of a comprehensive testing suite for Presto, the animation software utilized by animators, ensuring code integrity and reliability. Enabled the use of the render farm for building and testing the software
 - The transition from CPU to GPU led to frequent and regular builds, which shortened release cycle

Pearson Education | Iowa City, IA

Senior Site Reliability Engineer - Team Lead

Jul 2018 - Aug 2022

- Designed a fault-tolerant serverless distributed system utilizing AWS Lambdas and Step Functions, thereby reducing reliance on physical servers
 - Improved application reliability by enabling automatic queuing and rerunning failed tasks, eliminating single points of failure
- Implemented message queues to decouple the existing distributed system, freeing the application from dependency on the number of concurrent database connections
- Created automated tools to shut down non-production environments and restart them before the workday
 - Leading to a 70% reduction in monthly costs
- Streamlined database maintenance by automating updates with Flyway, eliminating the need for a full-time DBA
- Mentored 4 new team members and taught them Site Reliability Engineering practices in three weeks
 - Enabling them to add value to the company within a month
- Designed an infrastructure using Docker containers within an isolated VPC, integrating multiple AWS services such as ALB, CloudWatch, Auto Scaling, RDS, Lambdas, CloudFront, Route53, and IAM. This foundational setup paved the way for subsequent products at Pearson

Software Developer

Jan 2013 - Jul 2018

- Migrated products and services from legacy in-house servers to AWS auto-scaling, scaling server capacity to support 1.5 million simultaneous test takers. This transition resulted in reduced hosting costs
- Pioneered the usage of Chef as a tool to provision servers across all products in the company
- Developed a fully automated end-to-end smoke test pipeline by integrating Jenkins and Selenium
- Advocated for a transition from the dynamically-typed language Perl to the statically-typed language Go by leveraging prototype development and conducting comprehensive comparisons between the two languages

Drake University | Des Moines, IA

B.S in Actuarial Science, Computer Science, and Information Systems

Dec 2012

- Presidential Scholarship for Academic Excellence recipient, total award in the top 10th percentile

Patents

- 4 patents - US 9,507,792 B2, US 9,311,048 B1, US 10,078,670 B2, US 10,977,259 B2 - developed software that enables teachers to easily administer classroom-level quizzes by using their mobile phones

Interest

- AWS Certified Solutions Architect, proficient in Golang, Python, NodeJS, Vue, React, JavaScript, MongoDB, PostgreSQL, MySQL, bash scripting, Rancher and Kubernetes. Experienced with Linux system, NFS, Jenkins, Terraform, and Terragrunt
- Github.com/warrensbox – develop open source development tools that provide software developers and cloud architects the additional means to develop, test, and deploy their applications (visit: warrensbox.com)
 - Notable project – tfswitch (1.3 K stars) – used by large companies such as Salesforce and Forcepoint
- Articles - writer at warrensbox.medium.com
- Interest - flying airplanes, sailing, scuba diving, photography, soccer and water polo