Jared **Stewart**

SOFTWARE ENGINEER

1320 SW Broadway Suite 400, Portland, OR, 97201

✉ stewart.jared@gmail.com ⌂ jaredstew.art ⬚ jaredjstewart ⬚ Jared Stewart ⬚ jaredjstewart

Experience

AWS Elemental, a subsidiary of Amazon Web Services
Portland, OR

SR. SOFTWARE DEVELOPMENT ENGINEER - AWS MEDIAPACKAGE   *Nov. 2017 - Present*

- Designed and implemented improvements to resiliency including per-user request throttling, autoscaling, and better coordination between service dependencies during deployments.
- Launched the Video on Demand and Live-to-VOD harvester features, contributing from initial designs through to the API, code, and infrastructure. These allows users to repackage video content stored in S3, and to export clips from live events into S3 as VOD.
- Led the adoption of several new technologies on the team including new tools for log analytics and monitoring, an improved internal system for building and replicating Docker containers, a new load testing framework, and static type checking in Python.
- Eliminated a scaling bottleneck that was identified weeks before a high-profile live sporting event, which allowed us to reach record traffic levels without incident.

Pivotal Software
Portland, OR

SENIOR SOFTWARE ENGINEER - DATA R&D   *Sep. 2016 - Nov.2017*

- Contributed to and served on the PMC for Apache Geode, an open-source distributed in-memory database.
- Developed a new classloader that allowed users to deploy jar files with optional dependencies and more quickly by scanning the classpath via direct bytecode inspection rather than using reflection on eagerly loaded classes.
- Eliminated the need for manual testing before a release by creating a JUnit rule to drive external tests for the fully-assembled binaries.
- Implemented new CLI commands and refactored the existing legacy code to make the system cleaner and easier to maintain.
- Discovered a vulnerability within concurrent query execution that could leak data to unauthorized users (CVE-2017-9794).

CARFAX
Columbia, MO

SOFTWARE ENGINEER - BANKING AND INSURANCE GROUP   *Dec. 2013 - Aug. 2016*

- Implemented new features for carfaxbig.com, including a user-management system and a system to noitfy users when new data is added to a Vehicle History Report.
- Built a new billing system using RabbitMQ that increased the throughput over the old system by an order of magnitude.
- Developed a novel algorithm to suggest corrections for typographical errors in Vehicle Identification Numbers.

University of Iowa - Energy Control Center
Iowa City, IA

PROJECT ASSISTANT/DEVELOPER   *Jun. 2011 - Aug. 2012*

- Developed software that used Fourier Analysis to detect malfunctioning valves in building HVAC systems.
- Implemented real-time energy usage dashboards, utilizing over 100,000 data collection points across campus to track and forecast steam, electricity, and chilled water usage.

Education

Unviersity of Missouri
Columbia, MO

M.A. IN MATHEMATICS. GPA: 3.79/4.00, GRE: 170 VERBAL, 169 QUANTITATIVE.   *Aug. 2012 - May 2016*

- Passed PhD qualifying exams in Algebra and Analysis.

Unviersity of Iowa
Iowa City, IA

B.S. IN MATHEMATICS, B.A. IN PHYSICS, MAY 2012. GPA: 3.40/4.00, ACT: 35 COMPOSITE.   *Aug. 2008 - May 2012*

- National Merit Scholarship, Old Gold Scholarship, Honors Commendation.

Technical Skills

Programming Languages	*Proficient*: Java, Python. *Prior Experience*: C++, LaTeX, Groovy, Javascript, HTML, CSS
Amazon Web Services	ALB, EC2, ECS, S3, SNS, SQS, API Gateway, CloudFormation, CloudWatch, DynamoDB, Lambda, Route53
Tools	Docker, Git, Gradle, Nginx, SQL and NoSQL databases
Testing Libraries	JUnit, Awaitlity, Mockito, Selenium, Geb, Spock, PyTest
Web Frameworks	Spring Framework, Grails, React