Current

Seattle, WA · contact: resume (at) seanchen.info · website: www.seanchen.info

Experience

AWS Software Development Engineer III

- Established program to define Lambda-wide standards for operational excellence and improve launch review process.
- Leading 1-2 teams of developers staking or shepherding work for outage resiliency including hardware grey failure detection and mitigation, datacenter outage detection and mitigation, and network chaos testing.
- Executing and leading operational and developer improvements on the scale of months per year.
- Conducting 1:1s with various engineers, contributing directly to the hire of multiple engineers, contributing to planning, facilitating launch of new backend service and features reducing p99 latencies by 5x and 10s of percentages of availability improvements during networking outages.

Amazon.com Software Do	evelopment Engineer III
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- Leading a team of 6 developers across 5 different products with organization-wide impact (image-based machine-learning model execution platform, machine-learning model training platform, machine-learning workflow estimating catalog defect rate, data pipeline tracking bad actors on Amazon, automated human resourcing system). Aligning dozens of stakeholders, designing systems, planning short and long-term development work, forecasting monetary expenditures.
- Contributing to the hiring and promotion of multiple developers. Providing mentorship and guidance to interns and SDEs throughout the organization in the form of tech-talks, code reviews, one-on-ones and pair-programming.

Amazon.com Software Development Engineer II

May 2017-June 2020

June 2020 – January 2021

- Designed and contributed to development of a distributed, multitenant machine-learning model training platform for scientists, non-technical users and engineers which is used by multiple teams and saves months of effort per team. It is a dependency in multiple systems contributing a combined total of more than 1 million dollars savings to Amazon.
- Designed/developed a 15K+ TPS diff computer that reads all image changes to Amazon detail page and streams it to multiple downstream systems. Data powers multiple million-dollar Amazon products relating to catalog quality.
- Developed team processes to improve design and operational health. Developed team SDKs to improve productivity by weeks per project and hardware costs by more than \$100K/year.
- Led the Seller Feedback team through a database migration of a 5K+ TPS system surfacing data to the detail page while reducing latency by up to 1000x.

Amazon.com Software Development Engineer I

September 2015-May 2017

- Developed a parallelized data loader using Kinesis and DynamoDB which loads 100GB+ of data from dependent sources into DynamoDB in ~1 hour and services 2500+ reads per second on the Seller Central homepage with low latency. Reduced operations from 100s of tickets and 40 hours of developer time per week to almost 0 and saved millions of dollars. The data is used to grade seller performance and police bad sellers on the Marketplace platform.
- Co-designed and contributed to the development of a notification and survey software that sends 100,000+ surveys daily.
 Supports 3 different teams and multiple use cases and provides data on how the organization should better its products.
- Co-designed and contributed to the development of services that power 3rd party Marketplace prepaid return labels and "Refund on first scan" using multiple AWS technologies. Reduced buyer dissatisfaction with returns up to 50%.

Math Tutor Winter 2015-Summer 2016 Tutored high school geometry and algebra

CS 3110 (Functional Programming) Consultant	Spring 2014	
 Graded homework, exams, and held office hours 		
CS 4320 (Introduction to Databases) Teaching Assistant	Spring 2014	
 Graded homework, exams, and held office hours. Wrote Neo4J/Hadoop assignment. 		
Amazon.com Software Development Engineer Intern	Summer 2014	
 Developed a Wireshark plugin to dynamically decode in-house RPC messages using C, C++, Protocol Buffers 		
 Integrated jemalloc heap profiling into debug builds and parallelized unit tests for Amazon AuroraDB Storage Node builds 		
Cornell Autonomous Systems Laboratory Developer	Spring 2013	
 Implemented a naïve, general-purpose object detector for laboratory robots using OpenCV-Python 		
Education		
Cornell University (GPA: 3.94/4.0) [B.S. in Computer Science w/ Minor in Math]	2013-2015	
Rensselaer Polytechnic Institute (GPA: 3.97/4.0)	2011-2013	
Hunter College High School		