New York City, NY
HanzheLi@nyu.edu

HANZHE LI

linkedin.com/in/Hanzhe-Li

Software Development Engineer II with 3+ years of experience developing full-stack web apps using **Python**, **Java**, **Spring framework** and **React** with **Typescript**. Also 4 years of using cloud computing services on **AWS** such as **DynamoDB**, **Lambda**, **OpenSearch**, **CloudFormation** and **CloudWatch**.

EDUCATION

NEW YORK UNIVERSITY, TANDON SCHOOL OF ENGINEERING   **Brooklyn, NY**
Master of Science, Computer Engineering, GPA:3.7/4.0   09/21 — 12/22
UNIVERSITY OF CALIFORNIA, BERKELEY   **Berkeley, CA**
Visiting Student, Computer Science   01/19 — 06/19
WUHAN UNIVERSITY   **Wuhan, China**
Bachelor of Engineering, Software Engineering, GPA: 3.5/4.0   09/16 — 06/20

COURSEWORK HIGHLIGHTS

New York University	Computer Architecture, Internet Architecture & Protocols, Network Modeling & Analysis
University of California, Berkeley	CS 170 Algorithms, CS C267 Parallel Computing
Wuhan University	Calculus(90+), Linear Algebra(100), C#, Java OOP, Data Structure, Database System

PROGRAMMING / TECHNICAL SKILLS

Programming	Python, Java, SQL, React, JavaScript/TypeScript, MATLAB, LaTeX, Excel VBA
AWS experiences	DynamoDB, RDS, EC2, Lambda, CloudFormation, CloudWatch

EXPERIENCE

Amazon Web Services, LLC. New York City, NY   07/25 — Current
Software Development Engineer II

- Redesigned core search query system enabling case-insensitive and complex queries across **OpenSearch**, improving user experience and search accuracy for production applications.
- Resolved critical authentication issues blocking product launches by fixing misconfigured auth clients and implementing comprehensive validation checks across frontend HTTP methods.
- Optimized Lambda operational costs by auditing 9+ async functions, removing unnecessary provisioned concurrency, and implementing proper timeout strategies for external service calls.
- Led comprehensive Python package upgrades across 20+ repositories, enabling **Python 3.10** migration organization-wide while implementing formatter (black), linter (flake8) for improved code quality.

Amazon Web Services, LLC. New York City, NY   02/23 — 07/25
Software Development Engineer

- Conducted a spike on service slowness issues, utilizing **CloudWatch** and **X-Ray** to dive deep into user experience; Called out multiple low-hanging fruits and took actions on some of them, resulting in 20% latency decrease on the customer's side.
- Optimized long-standing data export processing service and achieved a 66% decrease in the average execution time of **AWS Lambda**, which helped to cut the cost by 70%; also contributed to this change to the shared constructs of the organization to reuse.
- Examined and determined a high-severity security issue in the existing service, and put up a fix and released to production in 2 days after; wrote up most of the COE doc (correction of error, Amazon internal workflow for analysis of high severity event).
- Migrated existing pipelines from **LPT (Live pipeline templates)** to **AWS CDK v2**, reducing developers' churns and effort in maintaining the pipelines; split the entire old pipeline to front-end and back-end to limit blasting radius.

Amazon Web Services, LLC. Herndon, VA   05/22 — 08/22
Software Development Engineer Intern

- Developed a threaded comment component using **Typescript** on existing project, which allowed users to create, edit, and delete comments as well as reply to threads in real time using **WebSocket**
- Created new API endpoints for handling CRUD operations of threaded comments and update related entries in **AWS DynamoDB**.
- Updated downstream data processing services, written in **Python** and deployed as **AWS Lambda**, to send out email notifications for newly created comment to involved people in one thread; also to export the new comments to the organization's data warehouse.
- Improved user engagement and collaboration by providing a seamless and efficient commenting experience