Krit Goyal

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EDUCATION

Northeastern University, Boston, MA | Dec 2020
Khoury College of Computer and Information Sciences
Candidate for Master of Science in Computer Science, **GPA: 4.0./4.0**
<u>Related courses</u>: Large-Scale Parallel Data Processing, Information Retrieval, Game AI, Programming Design Paradigm

Birla Institute of Technology and Science(BITS) Pilani, Rajasthan, India | May 2017
Bachelor of Engineering in Electrical and Electronics Engineering, **GPA: 7.78/10**
<u>Related courses</u>: Machine Learning, OOP, Data Structures and Algorithms, Operating Systems

TECHNICAL KNOWLEDGE

Scripting:	Kotlin, Go, Java, Python, C#, Scala
Web technologies:	React.js, Typescript, Vue.js, Node,js, Express.js, PHP
Databases:	MySQL, DynamoDB, Firebase Realtime DB, sqlite3
Distributed Systems:	Hadoop Map-Reduce, Spark (Scala/Python)
Others:	AWS, AWS CDK, Docker, Git, Firebase

WORK EXPERIENCE

Amazon, Santa Barbara, CA
SDE II, Alexa Knowledge Graph Vending Team | Graphiq Platform Team — Dec 2022 - Present

- Developed transformation scripts utilizing PySpark to convert quads data into AWS Neptune compatible CSVs.
- Significantly enhanced script efficiency, reducing execution time from over 40 hours to approximately 45 minutes.
- Implemented integration of Background Jobs system with Graphiq Knowledge Sandboxes, facilitating local testing by Software Development Engineers (SDEs) and Knowledge Engineers (KEs).
- Successfully migrated over 150 Background Jobs from PHP7 to PHP8, aligning with the latest standards and bolstering security measures.

SDE I, Graphiq Platform Team — Feb 2021 - Dec 2022

- Successfully migrated of over 150 Graphiq Background Jobs from legacy EC2 managed instances to AWS ECS as a pivotal accomplishment. This migration yielded substantial enhancements in security measures and introduced streamlined deployment automation, thereby establishing a significantly more stable and maintainable system.
- Pioneered the development and execution of change mechanisms enabling seamless annual live upgrades for the five foundational databases of Graphiq's Knowledge Graph. This strategic initiative was executed while ensuring uninterrupted production traffic flow, achieving downtime of under 5 minutes.
- Architected a robust Gamma stage infrastructure utilizing AWS CDK, specifically for critical data stores including MySQL Aurora databases and AWS Opensearch domains. This encompassed end-to-end implementation, integrating comprehensive CI/CD processes. The resulting environment became a cornerstone for KEs and SDEs, facilitating easier development and rigorous testing.

Uptodate, Wolters Kluwer, Waltham, MA
Web Developer, Intern, Core team — Jan 2020 - May 2020

- Dockerized the fundamental UpToDate application and authored comprehensive setup documentation.
- Collaborated within the core team to address tickets encompassing UI/UX improvements (Angular.js, JSP) and backend microservices development (Java, Spring Boot).
- Developed a new data migration tool for seamless inter-database transitions (stage, prod, dev) alongside two fellow interns.
- Leveraged Node.js and Express.js to craft the backend and Vue.js for the frontend. Delivered a holistic solution complete with thorough documentation and robust unit tests.
- Adhered to a bi-weekly Agile Scrum-ban methodology, ensuring iterative and efficient project progress.

PROJECTS AND ACTIVITIES

Backend Developer, WorkerB — Jan 2020 - April 2020
Docker containerized server using Golang, Dgraph, sqlite3 and MySQL db, redis caching, leader election

Optimizing compiler inlining with Machine Learning, DMT, NEU — June - Aug 2019
Achieved 18.8% speedup by modifying NEAT-python to model and explore topologies for deep Neural Networks, execute our modified Glasgow Haskell Compiler(GHC), and benchmark using NoFib