Ishaan Patel

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EDUCATION

UNIVERSITY OF NORTH CAROLINA at CHARLOTTE Aug. 2020 - May 2024
Bachelor of Science in Computer Science; Concentration in Software Engineering Cumulative GPA: 3.85
Honors: Magna Cum Laude, Chancellor's List

SKILLS

Computer:

- **Programming Languages:** Java, C, C++, Python, C#, HTML, CSS, JavaScript
- **Frameworks/Libraries:** AWS, Spring Boot, Azure, PyTorch, Matplotlib
- **Tools:** Git, Jenkins, Docker, Maven, JIRA, Postman, CMake, Linux

WORK EXPERIENCE

FIDELITY INVESTMENTS
Software Engineer Intern June 2023 - Aug. 2023

- Led the integration of Azure Messaging Service for real-time data processing from the ground up, applying ORM techniques in Java to efficiently manage employer 401(k) transaction data within SQL databases; integrated message queues and optimized transaction handling, resulting in a 30% reduction in processing latency and improved scalability for handling peak transaction volumes
- Developed and managed API endpoints for Azure Service Bus, implemented error handling, and successfully migrated project from Bitbucket to GitHub, enhancing collaboration and version control
- Implemented Jenkins CI/CD pipeline, streamlining the development workflow and cutting deployment time by 50%, leading to quicker delivery of new features and fixes
- Designed and implemented layered architecture (DAO, DAOImpl, Service classes) in a Maven and Spring Boot environment, enhancing maintainability and scalability

UNIVERSITY OF NORTH CAROLINA CHARLOTTE
Undergraduate Researcher Jan. 2023 - Jan. 2024

- Implemented functionality to adapt Microsoft's learned index ALEX and industry-leading STX B+ tree for dynamic graph workloads; added multithreaded reading for lookups, range queries, and graph analysis algorithms such as PageRank and Breadth First Search; benchmarked insertion time and analysis performance
- Continuously analyzed the performance of ALEX vs STX for graph insertion and traversal using SNAP datasets, iterating on improvements for both data structures; presented findings to a faculty advisor and lab group, demonstrating a 20% improvement in traversal speed
- Led my independent research project utilizing a high performance computing cluster at UNCC's Data Intelligence Research Laboratory, a top 35 parallel computing program in the US; received mentorship on research approach and technical guidance from top researchers

FIDELITY INVESTMENTS
Software Engineer Intern June 2022 - Aug. 2022

- Engaged in the creation and management of AWS infrastructure (including S3, SQS, Lambda, and KMS) using yaml templates and CloudFormation to automate transaction incentive processes and enhance app functionality
- Played a pivotal role in the development and launch of the Fidelity Bloom mobile investing app, designing REST API endpoints and AWS Lambda functions; ensured 99.9% uptime through extensive testing using CloudWatch and Postman, supporting over 10,000 daily users
- Streamlined the software development process by implementing CI/CD pipelines using Jenkins and UrbanCode Deploy, while actively engaging in Agile/Scrum practices, contributing to sprint planning, and crafting detailed user stories
- Assisted in app deployment and provided validation support, ensuring a 100% success rate for 3 major releases; worked alongside members of my business unit with their stories and tasks, fostering a collaborative environment that led to a 20% increase in team productivity and successful project execution

SIDE PROJECTS

MNIST Classification Model
Deep Learning Model using PyTorch April 2022

- Created a Convolutional Neural Network to classify and verify images of handwritten numbers into their actual values; implements residual connections and dropout while achieving >95% accuracy