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Shubham Tapadiya (he/him/his)

(607)338.0402 | H1B Visa

Cambridge, MA | Open to relocate

Portfolio: https://shubhamtapadiya.com

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PROFESSIONAL SUMMARY

Results driven and motivated Software Engineer with demonstrated experience in full stack development. Productive in team and individual projects, showing expertise in design, development, and delivery of high-quality client solutions. Seeking to leverage proven leadership, achievements, and skills to ensure project success.

TECHNICAL SKILLS

Programming Languages:	Java, Python, C, C++, Bash Scripting, JSON
Databases:	MongoDB (NoSQL), Firebase (NoSQL), Oracle (SQL), Postgres (SQL)
Web Technologies:	HTML, CSS, JavaScript, React.js, Node.js, REST API
Performance Testing Tools:	LoadRunner, Wireshark, Flexible IO Tester (FIO), Easy Mock (Unit Testing)
Others:	AWS, Git, Linux, Docker, Kubernetes (DevOps), Spring Boot, Maven, GitLab (CI/CD), JIRA (Agile)

PROFESSIONAL EXPERIENCE

Software Development Engineer, Amazon Web Services (AWS) | *Boston, USA* ***Aug 2021 – Present***

- Delivered OpenZFS SAZ File Server to customers in a cloud environment on the FSx team
- Worked on the development of the highly available file system offering
    - Enabled EC2 instances to configure DRBD resources for data replication between available nodes
    - Planned, designed, and executed the development of a robust and scalable API for OpenZFS file systems using Java, leveraging modern software development practices and principles
    - Conducted Proof-of-concept (PoC) and performance testing for data synchronization between resource devices
- Improved operational posture by developing tools and procedures that limit access to host instances, resulting in an 80% reduction in the risk of unintended changes in data or system configuration
- Worked on scoping down the Service Linked Role (SLR) policies for increased security across all supported AWS regions
- Authored and executed security tests on multiple FSx engines to ensure robust customer authentication within the FSx API
- Designed and implemented customer console experience for OpenZFS SAZ filesystem, and developed an internal operational website to track Volumes and Snapshots, increasing efficiency for operators and customers by 90%
- Optimized SQL queries to improve database efficiency and reduce data load time by 40%
- Performed deep packet inspection using Wireshark to assist in testing and troubleshooting of EC2 instance server
- Delegated the task of delivering performance metrics in AWS CloudWatch and scaling storage from backups to two interns, effectively mentoring and guiding them through the process
- Operated on highly visible customer-facing issues such as kernel deadlock due to stuck Transaction Groups (TXGs) in quiesce state and handle file system creates due to Amazon Elastic Block Store (EBS) insufficient capacity
- Implemented GitLab for version control and project management, facilitating streamlined coordination and organization of project tasks and code changes among team members
- Ensured development quality is being tracked and improved using testing frameworks like EasyMock and JMockit
- Utilized other AWS Services: EC2, EBS, CloudWatch, CloudFormation, CodeDeploy, SWF, S3, Secrets Manager, Lambda and VPC

Philanthropic Software Engineer, AJ Investment | *Mumbai, India* ***Jan 2018 – June 2019***

- Achieved a 75% increase in profitability by developing and expanding an investment control system with Python and storing customer data in an Oracle database, enabling data-driven decision-making
- Containerized the application using Kubernetes, resulting in improved scalability and fault tolerance and contributing to observed cost reductions
- Involved in team project for the development of pre-existing software to analyze current market investments
- Implemented Spring Boot and Spring Data JPA to efficiently persist and retrieve data in a PostgreSQL database

EDUCATION

Master of Science - Computer Science | *Binghamton University, State University of New York* ***Aug 2019 – May 2021***

- **Relevant Coursework**: Operating Systems, Programming Languages, Database Systems
- **Certifications**: Databases and SQL with Python

Bachelor of Engineering - Computer Science | *University of Mumbai* ***Sep 2014 – Jun 2018***

ACADAMIC PROJECTS

Road Symbols Recognition [OpenCV Library, Python] ***Jan 2021 – Mar 2021***

- Programed an application in Python to identify road symbols for maintaining safe driving conditions with the precision at 85%
- Applied OpenCV for image transformations with masking technique (bitwise operations) to focus on important part of the image
- Compared the processed image with set of road symbol images to correctly classify the label of it

LinkedIn Clone [Reactjs, JavaScript, CSS, Firebase] ***Nov 2020 – Dec 2020***

- Developed a LinkedIn clone using ReactJS and Firebase for real-time data storage
- Created a responsive user interface with features including user authentication, profile creation/editing, post creation/commenting, and real-time updates
- Utilized modern web development technologies to create a functional replica of LinkedIn

Object Distance Estimation with Computer Vision [Python, OpenCV] ***Aug 2020 – Oct 2020***

- Developed a Python script for estimating the distance from a camera to an object/marker in real-time using OpenCV
- Utilized edge detection and contour analysis techniques for accurate distance estimation
- Calibrated the camera and computed the focal length for precise distance measurements
- Implemented various image processing techniques like grayscale conversion, Gaussian blurring, and Canny edge detection for preprocessing the input image and extracting meaningful features

Hotel Accreditation and Sentimental Analysis with Machine Learning [Python, NoSQL] ***Dec 2019 - Mar 2020***

- Developed an application that utilized Multi-layer Perceptron, Support Vector Machine, and K-Nearest Neighbor algorithms to extract dominant aspects/labels from guest reviews stored in a NoSQL database
- Implemented GridSearchCV to optimize the parameters of the MLP algorithm, resulting in a high accuracy rate of 92%
- Conducted sentiment analysis on guest reviews using the VaderSentiment Library to gain insights into customer feedback
- Ensured improved availability and programming integrity by leveraging Google Collaboratory for development and testing purposes