SHANTANU PAPAL

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EDUCATION

Master of Science in Computer Software Engineering	**Aug 2022**
San Jose State University, California, USA	**GPA: 3.7/4.0**

Bachelor of Technology in Computer Engineering	**Oct 2020**
Vishwakarma Institute of Technology, Pune, India	**GPA: 3.8/4.0**

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, C, C++, Go
Web Technologies: HTML, CSS, Bootstrap, Rest API, GraphQL, Apache Kafka, Flask, Spring Boot
Frameworks: NodeJS, ReactJS, Redux, Express, PassportJS, Django
Databases: MySQL, Firebase, MongoDB, PostgreSQL, Redis
Cloud Technologies: AWS, Heroku, Docker, Kubernetes
AWS Services: EC2, S3, RDS, Lambda, Step Functions, CloudWatch
Testing Tools: JMeter, Mocha, Mockito, Selenium

WORK EXPERIENCE

Software Development Engineer | Amazon.com Inc., Seattle, U.S.A.   **Sep 2022 – Present**
- Developed software on ReactJS, MIX & Fern frameworks for Kindle Book Store team of 8 dealing with CBBE
- Generated 10 personalized suggestion widget groups that made easier for Kindle customers to choose an ideal book
- Built 2 new APIs to sync up string translation process in targeted locales for video and hero rotator cards
- Presented and augmented the number of pipelines for production in deployment for card creation process by adding a pre-production gamma stage
- Created a new infrastructure to assist the on-call team by setting 7 necessary alarms to monitor key quality and technical performance metrics related to latency and other aspects

Software Engineer | G.S.E. Red, Pune, India   **Jan 2020 – Dec 2020**
- Planned and led single-page application to display the best deals from 8 e-commerce websites using web-scraping techniques and streamlined a search feature to enable users to find deals on specific products or brands
- Demonstrated and designed a custom CMS that manages a product catalog of over 5,000 items across 50 categories, resulting in a 50% reduction in time spent on product management
- Authored and implemented a newsletter and social sharing feature to enable users to stay updated on new deals and easily share with friends
- Applied Redis caching and pagination to improve website performance, resulting in a 40% reduction in database load times and a 25% improvement in page load speeds and user experience

Software Engineer | Uniken Inc., Pune, India   **May 2018 –Aug 2018**
- Collaborated with product and testing teams to develop an android application to initiate automation testing of REL-ID Library (Uniken's patent), resulting in reduced manual testing by 70%
- Implemented a feature to provide a testing report summary along with test execution results and errors
- Formed 2 test plans with 12 test cases for new software releases and documented significant software features
- Acquired in-depth knowledge & experience on device testing, accessibility, latency testing along with Automation

ACADEMIC PROJECTS

Simulation of Reddit | *Express, React, MongoDB, Kafka, Redis, AWS (EC2, S3), PassportJS*   **Sep 2021 – Nov 2021**
- Co-ordinated with a team of four and built a three-tier, highly scalable web application similar to Reddit
- Defined and managed front-end functions and 20+ backend APIs for features such as set up community, showing nested comments, searching for a community, and upvote/downvote posts or comments
- Integrated Kafka as a middleware to handle concurrent requests on 14 services, enhancing throughput by 20%
- Leveraged Redis to store frequently accessed information, resulting in reducing response time on APIs by 47%
- Deployed application on AWS with front-end, back-end, and Kafka on separate instances with a load balancer

Simulation of Splitwise | *Node, React, Redux, MySQL, Mocha, Chai, Heroku, GraphQL*   **Apr 2021 – May 2021**
- Autonomously developed a prototype of Splitwise website enabling users to split bills and track expenses
- Created interactive front-end with state management in Redux and back-end APIs to support 7 features viz. forming groups, adding expenses, displaying recent activities, settling up debts, and multi-currency support
- Enforced request authentication with JWT and data validation of 15 back-end APIs by JOI validator
- Improved response time by 30% by connection pooling, deployed web-application on AWS EC2
- Performed load testing with JMeter for 10,000 concurrent users and wrote unit tests with Mocha and Chai