Jay Parekh

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EDUCATION

University of Southern California | *Master of Science in Computer Science*   August 2019 – May 2021
- Relevant Coursework: Web Technologies, Analysis of Algorithms, Foundation of Artificial Intelligence   *CGPA 3.67/4*

University of Mumbai | *Bachelor of Engineering in Information Technology*   August 2015 – May 2019
- Relevant Coursework: Data Structure & Algorithm Analysis, Web Programming, Computer Graphics   *CGPA 8.85/10*

PROFESSIONAL EXPERIENCE

Amazon.com Services LLC | *Software Development Engineer II*   December 2023 – Present
- Enhanced and optimized the existing shopping cart throttling mechanism, providing robust protection against bot attacks and ensuring uninterrupted service availability.
- Proactively updated the service documentation and dashboards.

Amazon.com Services LLC | *Software Development Engineer I*   July 2021 – December 2023
- Devised translation and invocation strategies for a novel service. Collaborated with partner teams and engineers, exploring multiple approaches. Held two design discussions and facilitated a backlog grooming session with task breakdown. The chosen approach leveraged existing components, resulting in a 3-4 month reduction in overall implementation effort.
- Collaborated with various partner teams on a service migration initiative. Successfully implemented an optimized solution that significantly improved the shopping cart performance, resulting in a global latency reduction of tm99 10ms and substantial savings in infrastructure costs.
- Achieved $1,740,000 in infrastructure cost savings by refactoring the shopping cart caching storage solution. Simultaneously, this optimization led to a global latency reduction of tm99 15ms.
- Assisted the client team in migrating to a newer version of the Shopping Cart. Conducted design discussions and implemented solutions that ensured backward compatibility and included metrics for tracking.
- Operational work – Restored 3 pipelines with 16 regions, ran 5 peak traffic simulations, setup a testing framework that fires mock requests, restructured the primary pipeline, resolved security risks, and ran stress tests.
- Teamwork – Mentored two Software Engineers, conducted Knowledge Transfer sessions on valuable internal debugging and log querying tools. Actively participated in team design discussions and proactively maintained service documentation.

Amazon.com Services LLC | *Software Development Engineer Intern*   May 2020 – August 2020
- Developed a full-stack internal tool for the Shopping Cart team, reducing operation time from 4 hours to 5 minutes.
- Designed a React UI with features including filtering, sorting, pagination, selection, and form validation.
- Implemented new middleware Java APIs to connect back-end and front-end components.

Bigshine Media & Entertainment | *Chief Technical Officer*   July 2017 – February 2019
- Led operations of 4 subsidiaries: Mammoth Media, Mammoth Gears, Ironhead Productions and Mammoth Gaming.
- Supervised technical operations of video games in "U CYPHER SEASON 1" TV show broadcasted on MTV India.
- Communicated, co-ordinated and contacted companies like Cooler Master, Zowie by BenQ, Circle Gaming, and UTV.

SOFTWARE SKILLS

- **Programming Languages:** Java, Kotlin, C++, Python, C.
- **Web Technologies:** React, NodeJS, JavaScript, HTML5, CSS3, PHP, MySQL, jQuery, Android Studio.
- **Software:** Adobe Premiere Pro, Unity, Adobe Photoshop, Hammer World Editor, Anaconda.
- **Platforms**: Linux, Git, Windows, AWS, GCP, Docker.

PROJECTS

News App – Website & Android App | *ReactJS, Android Studio, Java, NodeJS, AWS*   March 2020 – May 2020
- Built a responsive website using React and NodeJS which displays latest news from different categories by using New York Times API and Guardian API. Developed several user features such as comment, bookmark, share articles via Facebook/Twitter/Email.
- Implemented an asynchronous select option (Autosuggest) to allow users to search for news based on a keyword.
- Designed and developed an Android application to show the latest weather information from Openweathermap API and latest news from Guardian API. Created features like bookmarking an article and sharing on twitter.
- Displayed latest trends graph from user searched keywords - used Google Trends API and MPAndroidChart.

Advanced Text Summarization | *Machine Learning, Natural Language Processing, Python*   August 2018 – May 2019
- Developed a system that effectively summarizes documents by using ML models and NLP algorithms like Sequence 2 Sequence, TextRank, Beam Search, Deep Recurrent Generative Decoder, Gensim, and PyTeaser.
- Devised a hybrid model which yielded accurate results of the generated summary.

EXTRA-CURRICULAR ACTIVITIES

- **3D Modelling Workshop:** Led a 7-week online 3D modelling workshop for 500+ junior Computer Graphics enthusiasts.
- **Community Developer:** Served as Head of Technical Operations to develop and configure 24+ gaming servers which catered to 100,000+ users. Organized and executed 20+ eSports events.
- **Video Editing:** Created 20+ vertical videos on Premiere Pro and got 20,000+ views on Instagram.
- **Map Making:** Built 50+ maps with 10+ million views and 1+ million downloads on Steam Workshop platform.