ADITYA MANKAR

Los Angeles, CA | 602-727-8653 | aditya.mankar94@gmail.com | www.adityamankar.com | www.linkedin.com/in/adityamankar/

SUMMARY

A 5-year **experienced software** engineer, proficient in C++, Python, and developing enterprise applications. Among **1% of university** students who demonstrated advanced research skills and **system design** expertise by defending Master's thesis at the intersection of distributed systems (Blockchain) and sustainable resource trading

RESEARCH EXPERIENCE

California State University Long Beach   Los Angeles, CA
Research Assistant   May 2022-August 2023
Tech Stack: JS, AWS EC2, React, NodeJS, Solidity

- Conducted **original research**, under former Dean of University, critically analyzing over **50 research papers** to uncover repeating patterns in existing platforms and developed distributed system architecture by investing over **1000 hours**
- **Authored a paper** on the Decentralized Energy Trading Framework, scheduled for publication in 2 months
- Conducted in-depth research on Load Balancing Algorithms, unveiling a 25% performance enhancement in Round-Robin, credited to the strategic application of game theory

WORK EXPERIENCE

Scientific Games Corporation   July 2016-October 2021
Senior Software Engineer
Tech Stack: C++, Git, OpenGL, Game Engine

- **Led a team** of 4 people to execute new game concepts, collaborating with cross-functional teams to gather requirements and specifications, and creating modular component-based timeline. Implemented real-time multiplayer functionality using TCP and UDP socket programming
- Trained and **mentored** 3 junior game developers through hands-on guidance, adding new training modules, and adding SOLID coding principles into the tasks to improve first game development time by 1 week
- Pioneered a complex feature-merging issue, ensuring seamless integration and **overcoming ambiguity**. Devised a core logic of a feature that encapsulated deprecated features, conceptualizing around 40% of future development standards and guidelines
- Innovated a new reliable design review framework of iterative Proof-of-Concept, that conceptualizes feature design and development, increasing visualization. This promoted precise requirement specification and a reduction in bugs by 25%

Software Engineer
Tech Stack: C++, Python, SQL, Git, Jira

- Diagnosed Electronic Gaming Machines (**Embedded machines**) specific procedures and released a new modular workflow that made debugging fast and precise, improving task estimation and reduced the game review timeline by 3 days
- Eliminated 30% of internal game review bugs by introducing a 'review developer' role, streamlining development practices and common issues. This led to a 1-week reduction in the overall SDLC timeline.
- Engineered novel way to integrate object pooling mechanism in animations, optimizing size of graphic-intensive games by 20%

PROJECTS

Order Matching System   Los Angeles, CA
Tech Stack: C++, Design Patterns

- Developed a robust order-matching system by implementing 3 different design patterns to enhance order creation, and trade execution, ensuring efficient order matching
- Integrated logging mechanism, improving root-cause analysis process and streamlined workflow

Website Deployment (www.adityamankar.com)   Los Angeles, CA
Tech Stack: AWS S3, EC2, CDN, Docker, Jenkins

- Deployed static website developed in HTML, CSS, and JS onto Amazon S3 server and later migrated to **Amazon EC2** services to understand the feasibility options and flexibility. This involved server management intricacies, understanding performance optimization, implementing **CDNs**, and setting up **Docker** and Jenkins for **CI/CD pipelines** to automate development workflows

SKILLS

Proficient: C++, Python, System design, Slot games, Blockchain
Intermediate: JavaScript, React, NodeJS, SQL, NoSQL, API, Flask, HTML, CSS, Solidity
Technology & Framework: AWS S3, EC2, CDN, Serverless, Kubernetes, Docker, Jenkins, Git, Jira, Design Patterns

EDUCATION

California State University Long Beach   Los Angeles, CA
Masters of Science in Computer Science   August 2021-August 2023

Savitribai Phule Pune University   India
Bachelor of Engineering in Computer Science   August 2012-May 2016