

ADITYA MANKAR

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SUMMARY

A 5-year **experienced software** engineer, proficient in C++, Python, and developing enterprise applications. Among **1% of university** students demonstrating advanced research skills and **system design** expertise through Defense of a Master's thesis on 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, React, NodeJS, Solidity

- Conducted **original research**, under former Dean of University, for 1.5 years to develop a distributed system architecture for a Blockchain-based commodity trading system by uncovering repeating patterns
- 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 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 5 people to execute new game concepts and collaborated with cross-functional teams to gather requirements and specifications, and create a modular component-based timeline
- Trained and **mentored** 3 junior game developers through hands-on guidance, adding new training modules, and adding SOLID principles to improve first game development time by 1 week
- Pioneered a complex feature-merging issue, ensuring seamless integration and **overcoming ambiguity**. A core logic conceptualizing 40% of future development standards and guidelines
- Innovated a new reliable design review framework to reduce dependency on designers' feedback by 50% by providing iterative Proof-of-Concept for each feature

Software Engineer

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

- Diagnosed Electronic Gaming Machines (**Embedded machines**) specific procedures and devised a new modular workflow to optimize game-review timeline by 3 days
- Eliminated 40% of initial game development bugs by assigning a shadow developer to verify development practices and common issues, reducing internal team review timeline and overall SDLC by 1 week
- Engineered novel ways to optimize game size of graphic-intensive games by 20% by applying object pooling in animations

ACADEMIC PROJECTS

Order Matching System

Los Angeles, CA

Tech Stack: C++

- 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

Instant Messaging Application

Los Angeles, CA

Tech Stack: Python

- Implemented a scalable instant text messaging application supporting concurrent users, leveraging TCP sockets
- Tested functionality by creating 1 local server to initiate, terminate sessions, and create, join, and leave broadcast group

SKILLS

Proficient: C++, Python, System design, Slot games, Blockchain

Intermediate: JavaScript, React, NodeJS, SQL, NoSQL, API, Flask, HTML, CSS, Solidity

Technology & Framework: AWS, Serverless, Kubernetes, Docker, Git, Jira, Design Patterns, Hardhat

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