

PRATEET MISHRA

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EDUCATION

University of Southern California <i>Master's, Computer Science, GPA: 3.4/4.0</i>	Jan 2024 - Present
<ul style="list-style-type: none">Relevant Coursework: Analysis of Algorithms, Web Technologies, Information Retrieval & Web Search Engines, Computer Security.Technical Student Lead, Information Technology Services - mentored 50+ assistants; primary POC with ITS engineers.	
Symbiosis University of Applied Sciences <i>Bachelor of Technology, Computer Science and Information Technology, GPA: 9.23/10</i>	Aug 2019 - Jun 2023
<ul style="list-style-type: none">Relevant Coursework: Object-Oriented Design, Database Management, Cloud Computing.Recognized as a top 10% performer in the Computer Science and Information Technology program.	

EXPERIENCE

NICT Technologies Pvt. Ltd. <i>Software Engineer Intern</i>	Sep 2022 - Dec 2022 <i>Indore, India</i>
<ul style="list-style-type: none">Coordinated with a 6-member team to develop a decentralized NFT Marketplace using Ethereum, ReactJS, delivering a responsive, full-stack user experience.Boosted user engagement by ~25% through secure, real-time NFT browsing and transactions.Integrated MetaMask to enable encrypted ETH to buy/sell/resell with smart-contract compatibility, reducing payment-step drop off from 38% → 22.6%.Implemented authentication plus NFT mint/list/bid via Web3.js, increasing mint→listing completion by ~15% and reducing failed transactions by ~26%.	
Ypsilon IT Solutions Pvt. Ltd. <i>Software Engineer Intern</i>	Jun 2022 - Sep 2022 <i>Remote, India</i>
<ul style="list-style-type: none">Orchestrated cross-module integration for a 4-member team, ensuring seamless working of 3 core flows (listing, bidding, checkout).Optimized listing persistence via batched inserts and pre-signed S3 URLs, reducing upload latency to under 200ms.Engineered listing/bidding/checkout UIs and REST APIs for real-time updates and async bids, delivering 12 endpoints (~120 ms p95) and cutting manual page refreshes by two-thirds.Designed a role-based alert module (200+ notifications/auction) that improved user retention by ~13.5% and streamlined stakeholder communications.	

UNIVERSITY PROJECTS

Stocks Trading & Analytics Platform <i>Angular, Express.js, Node.js, MongoDB, Docker, Redis, GCP</i>	<ul style="list-style-type: none">Built real-time stock search for 100+ tickers via Redis Streams and event-driven Express/Node microservices with sub-second latency.Developed watchlist + wallet trading with OAuth 2.0 sessions and virtual balances; executed buy/sell with live prices & P/L over WebSockets with visual feedback.Designed parallel data pipelines for trade/price ingestion and real-time analytics (batch + stream), reducing processing lag by ~25% and enabling near-instant chart updates.Deployed to Kubernetes (GCP) with probe-based health and automated restarts, meeting a 99.99% availability target.
WeBudget – AI-driven Budgeting & Bill-Splitting App <i>Next.js, Supabase, Tailwind, Prisma, Inngest, Arcjet, Shadcn UI</i>	<ul style="list-style-type: none">Deployed a full-stack budgeting and bill-split app to 50+ beta users with Clerk Authentication and Arcjet bot protection, serving 50+ beta users with ~99% uptime.Shipped core money flows with Supabase real-time collaboration across 200+ transactions and 25+ concurrent sessions, reducing manual refreshes by ~60%.Automated operation via Inngest, and added rate limiting and error resilient retries, saving users ~3hours/month in manual tracking.Constructed receipt OCR + auto-categorization at ~95% accuracy and monthly AI insights, improving data quality and reducing manual edits.
SmartMedAI <i>Python, PyTorch, RLAIF, LoRA, DPO, Hugging Face PEFT, Qwen-2.5, DeepSeek-R1</i>	<ul style="list-style-type: none">Fine-tuned a 1.3B-parameter LLM for medical Q&A using RLAIF (PPO) on a curated clinical dataset across 8× A100 GPUs, boosting domain recall on 10K+ medical topics.Implemented a reward model to score and rank candidate responses, improving factual accuracy by ~5%.Optimized via RL and validated on 200 USMLE-style questions: DeepSeek-R1 accuracy 0.769 → 0.805 (+4.7%), BERTScore F1 0.621 → 0.651 (+4.8%), BLEURT 0.527 → 0.568 (+7.8%).

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript/TypeScript, HTML5, CSS3
Frameworks & Tools: GraphQL, React, Angular, Next.js, Node.js, Express, REST API, WebSockets, Tailwind CSS, shadcn UI, Prisma, PostgreSQL, MongoDB, Supabase, Docker, Kubernetes, CI/CD, Git/GitHub, Agile Technology, Machine Learning, Statistical Modeling, Deep Learning, Data Analysis, TensorFlow, LLM, GenAI, NLP, Data Pipelines