

BHUVAN SHAH

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EDUCATION

University of Southern California	Los Angeles, California, United States
Master of Science in Computer Science (3.61/4.0)	August 2023 - May 2025
Indus University	India
Bachelor of Technology in Computer Science (9.63/10.0)	July 2019 - May 2023

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, HTML, CSS, C, C++, C#, SQL, Go
Web Technologies & Frameworks: React.js, Node.js, Express.js, Spring Boot, Django, FastAPI, GraphQL, REST APIs
Databases & Storage: PostgreSQL, MongoDB, MySQL, Neo4j, DynamoDB, Firebase
Cloud, DevOps & Others: AWS (EC2, Lambda, S3, RDS), Azure, GCP, Docker, Kubernetes, Jenkins, CI/CD, Terraform, Git, Linux, Agile/Scrum
Soft Skills: Cross-functional Leadership, Collaboration, Critical Thinking, Analytical Problem Solving, Adaptability, Mentorship & Teaching

EXPERIENCE

Easley Dunn Productions, Inc.	Los Angeles, California, United States
Software Development Engineer	July 2025 - Present
<ul style="list-style-type: none">Collaborated with 5 cross-functional teams to engineer backend microservices using Java and Spring Boot with RESTful APIs to process real-time telemetry from 5 distributed systems, which reduced data ingestion latency by 60%Optimized a critical C++ data processing module by implementing a custom memory allocator and refactoring multi-threaded logic, reducing latency by 25% and memory usage by 40%Revamped a legacy data validation service by optimizing PostgreSQL lookups and adding composite indexes, cutting average query latency from 2 seconds to under 100ms	
University of Southern California	Los Angeles, California, United States
Graduate Teaching Assistant	May 2024 - May 2025
<ul style="list-style-type: none">Mentored 360+ students in system architecture design and algorithm optimization, implementing design patterns and OOP principles in Python and C#, achieving 90% success rate in scalable, production-ready applicationsArchitected 6+ interactive simulation platforms integrating real-time event streams and ML pipelines, enabling students to process 10K+ events and experiment with AI-driven system design	
Prompt Softech	India
Data Scientist Intern	December 2022 - May 2023
<ul style="list-style-type: none">Developed distributed microservices architecture using Java Spring Boot and Kubernetes, implementing async processing with PostgreSQL and Apache Kafka that improved pipeline scalability by 40% and enabled fault-tolerant model deploymentDesigned CI/CD pipelines with Jenkins and Docker to automate build, test, and deployment stages across microservices, cutting integration overhead by 30%	
VuelInternational	India
Software Developer Intern	June 2020 - October 2020
<ul style="list-style-type: none">Spearheaded a high-performance React/Node.js architecture with optimized MongoDB schema and indexing, boosting API throughput by 25% and doubling concurrent usersContainerized and deployed microservices using Docker and AWS, reducing deployment issues and improving reliability by 20%	

ACADEMIC PROJECTS

NoteScape <i>React, Node.js, D3.js, Docker, Neo4j, FastAPI, Python</i>
<ul style="list-style-type: none">Developed a fullstack knowledge graph app with GraphQL APIs to visually map concepts using React and D3.js frontendEngineered a custom WebGL rendering engine to visualize graphs with 2,000+ nodes, ensuring zero-lag & seamless UI/UXBuilt a scalable Python FastAPI backend with Neo4j, boosting query performance for complex, multi-level relationships by 60%Implemented retrieval-augmented generation using vector embeddings and LLM summarization for natural language Q&A
Real-time Document Collaboration Platform <i>React, Node.js, Express, MongoDB, WebSockets, JWT</i>
<ul style="list-style-type: none">Architected a Google Docs style platform using MongoDB, Express.js, and Node.js with WebSockets for real-time collaborationDesigned a distributed system to handle 200+ concurrent editing sessions with instant data synchronization across all clientsImplemented Operational Transforms to reduce merge conflicts by 85%, ensuring high data integrity across all documentsSecured the app with JWT authentication and role-based access control, deploying on Azure to ensure 99.9% uptime
PII Detection and Masking <i>PyTorch, NumPy, Pandas, Transformers, NLP, LLMs</i>
<ul style="list-style-type: none">Built an end to end NLP pipeline using PyTorch and Transformers to detect and mask 94 types of PII for data privacyFine-tuned a large language model (DeBERTaV3) on a custom dataset, achieving a 99.56% F1-score & 27% reduction in false positivesEngineered the inference pipeline using PyTorch for modeling and NumPy & Pandas to process over 10K documents per hourIntegrated Elasticsearch for scalable, secure searching of millions of anonymized documents with sub-second query latency