

Vatsal Goel

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PROFESSIONAL EXPERIENCE

Software Engineer

University of Utah

Oct 2023 - Present

Salt Lake City, UT

- Streamlined record ingest workflows through ticketing systems, reducing processing time by 30%.
- Engineered data verification workflows with Python, reducing manual effort by 70% and ensuring 99.9% data accuracy.
- Automated metadata validation and extraction processes using Python and Bash, enhancing digital preservation integrity across 1M+ records.

Software Engineer – Full Stack

XGRO Technologies

Oct 2021 – Oct 2022

Pune, India

- Developed full-stack e-commerce platforms using React, SQL, and REST APIs, improving system scalability.
- Optimized backend queries, caching, and API response times, reducing page load times by 30% & bounce rates by 12%.
- Designed and implemented responsive UI/UX with Figma, CSS and Adobe Creative Cloud resulting in increasing user engagement by 25%.

Video Engineering Lead

My Equation

Aug 2021 – Apr 2022

Remote

- Led the video engineering team, overseeing post-production workflows for 10+ digital media campaigns.
- Streamlined video editing workflows, reducing post-production time by 30% while maintaining high-quality production standards.
- Managed a team of 5+ editors and designers, optimizing video content for social media, resulting in a 25% increase in audience engagement.

EDUCATION

UNIVERSITY OF UTAH

Master of Science in Computer Science

May 2025

SRM INSTITUTE OF SCIENCE & TECHNOLOGY

Bachelor of Science in Computer Science

May 2023

TECHNICAL SKILLS

Languages: Advanced: Python(5yrs), C/C++(4yrs) | Intermediate: JavaScript(3yrs), Java(2yrs) | Familiar: SQL(1yr), Go (1yr)

Frameworks & Libraries: Flask, Node.js, Express.js, REST APIs, React, TensorFlow

Cloud & DevOps: AWS, Docker, Kubernetes, Terraform, CI/CD, Git, Bash, Agile

PROJECTS

AWS Powertools for AWS Lambda (TypeScript) | Open-Source Contribution (~100 hours) - [GitHub](#)

Jan 2025

- Implemented JSON Schema validation utilities, including a @validator decorator and a Middy.js middleware for request/response validation.
- Formulated a log buffering module and AWS TransferFamilySchema support, collaborating with maintainers to ensure best practices and 100% test coverage.

CineMatch | Personal Project (~80 hours) - [GitHub](#)

Jan 2025

- Built CineMatch, a full-stack movie recommendation platform with Node.js/Express, MongoDB, and React.
- Developed an AI-driven recommendation engine using collaborative filtering, sentiment analysis, and swipe-based interactions, improving accuracy by 30% and enhancing user satisfaction.

DNS Server | Personal Project (~60 hours) - [GitHub](#)

Nov 2024

- Constructed a high-performance DNS server leveraging Python and RFC standards, handling up to 5K queries/second.
- Enabled support for recursive query handling and diverse DNS record types, ensuring scalability across large datasets with 50% faster response times through caching.

Raft-Based Fault-Tolerant Key-Value Store | Academic Project (~120 hours) - [Project Reference](#)

Sep 2024

- Architected a robust key-value storage system in Go using Raft consensus, distributed systems and concurrency.
- Delivered fault-tolerant capabilities through leader election, log replication, and state machine execution, ensuring consistency and resolving 95% of network partition issues within minutes.