Aniket Ladukar

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EDUCATION

University of Southern California, **Los Angeles, CA** *(M.S in Computer Science, 3.71 / 4)* — **Jan 2023 – Dec 2024**

University of Mumbai, **India** *(B.E in Information Technology, 9.1 / 10)* — **Aug 2016 – May 2020**

CERTIFICATIONS

- **AWS Certified Developer – Associate**

TECHNICAL SKILLS

Languages	: Java, JavaScript, Python, C, Shell Scripting	**Compute**	: AWS Lambda, EC2, ECS, Beanstalk
Web Tech	: HTML, CSS, ReactJs, Spring Boot, NodeJs	**Integration**	: AWS SQS, SNS, Step Functions
Testing	: Selenium, Protractor, CypressJs, Junit, TestNG, Mockito	**Networking**	: AWS Route 53, ELB, Cloudfront, API Gateway
Databases	: RDS, Aurora, MySQL, MongoDB, DynamoDB, ElastiCache	**Monitoring**	: AWS Cloudwatch, Cloudtrail, X-ray
CI / CD	: Docker, Kubernetes, Jenkins, Github Actions	**Storage**	: AWS S3, EFS, EBS

WORK EXPERIENCE

SS8 Networks — **Aug 2024 – Present**
Software Engineering Intern — *Remote, Los Angeles*

- Used **Kafka** producers and consumers to **integrate** Ingestion service and Media service to enable **conversion** of ingested events to **wavfile**.
- Implemented **audio streaming** via **WebSocket** with instant seeking to any timestamp, enabling precise control and **minimal buffering**.
- Streamlined deployment by configuring **Helm charts and ConfigMaps**, **reducing** service **installation time** on Kubernetes Cluster **by 40%**.

Information Sciences Institute, USC — **May 2023 – Aug 2024**
Frontend Engineer — *Marina Del Rey, Los Angeles*

- Developed and maintained a **Reactjs** based front-end component for the DERIVA asset management platform.
- Incorporated array inputs to existing forms using react-beautiful-dnd, resulting in a **70% improvement** in **data ingestion efficiency**.
- **Containerized test suite** using `docker` with support for headful testing, replacing **third party services** and **saving $150** per month.
- Migrated image processing pipeline to **AWS** to achieve a **50% reduction** in operational cost.
- **Mentored junior developers**, providing guidance and support to improve the codebase, leading to faster project completion times

Infosys Ltd — **Nov 2020 – Dec 2022**
Full Stack Developer — *Mumbai, India*

- Designed and development a **Kubernetes Cluster Manager** in **ReactJs and Java Spring Boot** enabling seamless setting up of Kubernetes clusters and facilitating installation of an open-source cluster monitoring tool, resulting in a **60% reduction in roll-out period**.
- Augmented **Data Delivery Platform** with file support for CSV, XLSX, PDF, and Images, resulting in a **55% increase** in parsing and previewing speed for larger files in ReactJs.
- Engineered a template based custom interactive form component in ReactJs using **BlueprintJS** and **react-redux** with CRUD support, promoting code reusability and developer-friendly form rendering **reducing development time** for forms by roughly **90%**.
- Created workflows to **containerize** UI and backend microservices using `docker` and `docker-compose` to catalyze a **reduction** in build and deploy time by **80%**.
- Streamlined product suite by creating a **Single Sign On Service**, enabling seamless **authentication** and **license based** product level **authorization**, drastically **reducing administrative overheads by 45%** by simplifying user management and access control.

PROJECTS

Image Processing Service on AWS | *Information Sciences Institute* | *AWS Lambda, Batch, S3, DynamoDB, API Gateway*

- Developed a **highly available and cost-effective** image processing API using **AWS Lambda and boto3**. Exposed **REST** endpoints via **API Gateway** to dynamically detect workload requirements and **optimally** allocate tasks to appropriate AWS batch job queues
- Deployed multiple compute environments tailored to workload needs, leveraging **AWS Fargate, EC2, and EC2 Spot Instances** to automatically scale based on task frequency, CPU, memory, and priority, **maximizing** both **performance** and **cost savings**.
- Used **AWS S3** for **efficient and secure** storage of processed data and **DynamoDB** for fast, **low-latency** metadata management.
- Automated daily reporting of job statistics, resource utilization, and cost analysis using **AWS Lambda, EventBridge, and SNS**.

Kubernetes Cluster Manager | *Infosys Ltd* | *Reactjs, Spring Boot, DynamoDB, Elastic Beanstalk*

- Developed an application to **manage, deploy and monitor** Kubernetes Clusters on airgapped On-Premise Servers.
- Deployed the **Reactjs** frontend and **Spring Boot** backend using **Elastic Beanstalk** for easy infrastructure management.
- Used **AWS Cognito** User Pools and User Groups for easy Authentication and Authorization.
- Implemented extremely secure configuration management using **AWS Secrets Manager**.
- Used **DynamoDB** to persist cluster metadata and user information for fast and secure access.

Video Indexing and Searching | *Graduate Course Project* | *Java, JavaFX, MongoDB*

- Implemented Constellation Mapping for Audio Spectrogram and Shot Detection in Java for video content indexing.
- Achieved an average search time of **100ms**, inclusive of hashing and query searching surpassing **expected** benchmark of **1s**.

EXTRACURRICULAR

Student Mentor | *University of Southern California* | *Viterbi School of Engineering* — **Jan 2024 - Present**

- Mentored a group of incoming students and guided them with academic planning and course selection as aligned with their career paths.

Intercollegiate Archery Team | *University of Southern California* | *Olympic Recurve Men* — **Sept 2023 - Aug 2024**