

Sharvari Deshmukh

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ABOUT ME

An adept software engineer skilled at architecting scalable systems & developing intelligent ML models. Experienced in optimizing fintech platforms & streamlining low-latency applications. Driven to implement impactful AI-driven technology through creative problem-solving.

EDUCATION

UC SAN DIEGO

M.S. ELECTRICAL & COMPUTER ENGINEERING

(SIGNAL & IMAGE PROCESSING)
Sept 2023 - Jun 2025 | La Jolla, CA
GPA: 3.57 / 4

BITS PILANI

B.E ELECTRONICS & INSTRUMENTATION

Aug 2013 - Dec 2017 | Pilani, India
GPA: 3.62 / 4

COURSEWORK

GRADUATE

Statistical Learning
Digital Image Processing
Computer Vision
Programming for Data Analysis

UNDERGRADUATE

Machine Learning
Digital Signal Processing
Pattern Recognition
Linear Algebra
Probability & Statistics

SKILLS

LANGUAGES

MATLAB • Python • Golang
Java • Rust • JavaScript

TOOLS

PyTorch • TensorFlow
AWS (RDS, SQS, S3, EKS)
Docker • Apache Kafka
MySQL • MongoDB • Redis
Git • Linux

EXPERIENCE

GRAB | SOFTWARE ENGINEER

Digibank, Compliance | Mar 2022 - June 2023 | Bangalore, India

- Designed & implemented Instant KYC pipeline for Singapore NRIC card users slashing onboarding time from **3 days to less than 2 min.**
- Engineered a modular workflow engine for seamless integration with Indonesian credit bureaus & telco providers for Loan Origination System.
- Empowered event-driven automation of tasks across multiple compliance use cases by architecting a sophisticated scheduler library in **Golang**.

PAYTM MONEY | SOFTWARE ENGINEER

Payments | Jan 2021 - Oct 2021 | Bangalore, India

- Developed numerous distributed & scalable features within core payments service, effectively managing **50,000 transactions per day** across diverse financial products including Mutual Funds, Equities, NPS, & EdTech.
- Improved fault-tolerance of critical systems by introducing circuit breaker pattern via Hystrix helping reach **99.9% system availability**.
- Upgraded Mutual Funds end-to-end payment flow, **reducing API latencies by 10x** with DB query enhancements.

CITIBANK | TECHNOLOGY ANALYST

Equity Trading, Private Bank | Aug 2018 - May 2020 | Pune, India

- Built low latency Java applications using (openHFT) Chronicle based framework achieving **microsecond latency** for in-house HFT applications connecting HKFE.
- Developed a dynamic PDF generator application leveraging **Spring Boot & Microservices** architecture to automate client onboarding processes.
- Improved development process by introducing **Agile & CI-CD** practices.

INTEL | FIRMWARE INTERN

Communication & Devices | Jan 2017 - Jul 2017 | Bangalore, India

- Optimized equalizer module performance by implementing fixed point arithmetic based API for ARC HS47D processor resulting in **3x efficiency gain**.

PROJECTS

Dust-Fragment classification | [UCSD ARCLab](#)

- Investigating recent **representation learning** algorithms to extract relevant features from ureteroscopy videos.
- Aiming to automate laser settings for lithotripsy procedure based on spatiotemporal detection of kidney stone, fragment and dust.

Histopathology image classification for cancer diagnosis

- Conducted comparative analysis between **CNNs & Vision Transformers** Fine-tuning both models through transfer learning & data augmentation.
- Implemented fine-grained architectural modifications attaining **99% accuracy** with **API-Net & Swin-Transformers** on LC25000 dataset.

EEG-Based Sleep Analysis

- Designed elliptic filters for EEG signal processing, enabling the detection of sleep stages based on distinct brainwave frequency bands.