

# Alay Dilipbhai Shah

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## WORK EXPERIENCE

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**ML Software Engineer** September 2023 - Present  
*FEDML, Inc.* CA

- Building AI/ML platform that facilitates distributed execution and deployment for GenAI tasks.
- Tech lead of orchestration and scheduling layer that enables spot jobs and model deployments on a decentralized compute plane.
- Projects where I've played a significant role: [Launch](#), [Deploy](#), [Storage](#), [Compute](#),

**Backend Software Engineer** July 2021 - September 2023  
*Palantir Technologies, Inc.* CA

- Implemented monitoring and alerting systems for databases, resulting in a 75% reduction in downtime and a 50% increase in response time.
- Developed Python automation scripts to transition assets to a multi-tenant environment, reducing human effort by 90%.
- Contributed to improving authorization frameworks for data protection in multi-tenant setups.

**Research Assistant** August 2020 - May 2021  
*USC Viterbi School of Engineering* CA

- Led development of computer vision domain of an open-source research library called Federated Machine Learning ([FedML](#)), designed for decentralized machine learning. Specifically, I spearheaded development of the image segmentation module of the framework, called ([FedSeg](#)), and co-authored a [FedCV](#) paper that was published in AAAI, under the supervision of Professor [Salman Avestimehr](#).
- Research Areas: Distributed Systems, Deep Learning, Computer Vision, Federated Learning, Machine Learning.

**Software Engineer Intern** May 2020 - August 2020  
*Amazon Web Services* WA

- Developed visualization dashboard for forecast reports, aiding evaluation and improvement of ML model forecasts via user-friendly scenario-driven charts with customizable options.

## EDUCATION

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2021 **Master's in Computer Science**, University of Southern California (GPA: 3.65/4.0)  
2018 **Post Graduate Diploma in Data Science**, IIIT - Bangalore (GPA: 3.8/4.0)  
2017 **Bachelor's in Mechanical Engineering**, Gujarat Technological University (GPA: 9.1/10.0)

## PUBLICATIONS

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Chaoyang He, **Alay Dilipbhai Shah** et al. (2021). "FedCV: A Federated Learning Framework for Diverse Computer Vision Tasks". In: *AAAI Conference on Artificial Intelligence*. arXiv: [2111.11066 \[cs.CV\]](#).

## SKILLS

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Programming Languages Python, Java, Golang, C/C++, Bash, SQL  
Technologies & Libraries Docker, Kubernetes, AWS, Git, Redis, MQTT, Pytorch, Observability