# Daniel Zeng

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**Stanford University** M.S. Computer Science *June 2023*
**University of California, Berkeley** B.A. Computer Science GPA 3.96 *May 2021*

**Relevant Courses (*current)**

CS224W* - ML with Graphs, CS182 - Neural Networks
CS330* - Deep Multi-Task and Meta-Learning
CS285 - Deep Reinforcement Learning, CS188 - AI
EE126 - Probability/Random Processes, CS189 - ML
CS170 - Algorithms, CS162 - Operating Systems

**Skills**

**Languages:** Python, Java, Golang, Bash, Javascript, C/C++, Matlab
**Platforms/Tools:** PyTorch, TensorFlow, NumPy, Git, AWS, Kubernetes, Terraform, SQL, matplotlib, Jupyter Notebooks

**Experience**

**SNAP Group | Graduate Researcher, Stanford University** *Sept 2021 - Present*
*Machine learning research, with postdoc Tailin Wu and advised by Professor Jure Leskovec*

- Researching neural-symbolic visual concept reasoning for few-shot learning on the ARC dataset
- Implementing unsupervised discovery of concept relations with graph neural networks
- Improving vision and learning pipeline for compositional object-relation correspondence

**Yu Lab | Undergraduate Researcher, ICSI, UC Berkeley** *Sept 2020 - Aug 2021*
*Machine learning computer vision research, with Tsung-Wei Ke and advised by Dr. Stella Yu*

- Researched unsupervised image representation learning using pixel-level contrastive learning
- Implemented and benchmarked featurizations on image classification image embeddings
- Investigated spatial and structural relationships on classification and retrieval performance

**Stripe | Software Engineer Intern, Data Platform Infrastructure** *May 2020 - Aug 2020*

- Implemented, designed Hadoop command proxy service with Go, gRPC on AWS, Kubernetes
- Deployed service to production which proxied 1000+ commands so far (reliable, scalable)
- Built observability dashboard for service via SignalFX and alerting, detectors via Terraform

**AutoLab | Undergrad Researcher, Berkeley Artificial Intelligence Research** *Feb 2019 - Feb 2020*
*Machine learning research, with postdoc Dr. Ajay Tanwani and advised by Professor Ken Goldberg*

- Researched semi-supervised domain adaptation using adversarial representation learning
- Implemented and benchmarked adaptation algorithms, network architectures, metric learning
- Optimized adaption by aligning marginal and conditional distributions in latent feature space

**Microsoft | Software Engineer Intern, Azure Production Infrastructure** *May 2019 - Aug 2019*

- Designed, developed analytics tool to automate queries for optimizing customer experience
- Built productivity tooling to empower visualization and observability in Azure infra systems

**NASA | Software Engineer/Research Intern, Ames Research Center** *June 2018 - Aug 2018*

- Developed simulation for cyber security attacks on Air Traffic Management (ATM) system
- Built and tested functionality to generate and visualize diverse attack scenarios
- Created internal tooling to configure and interface ATM framework components with simulator