

EXPERIENCE

- Snap, Inc. (Snapchat)** Seattle, WA
Machine Learning Engineering - Tech Lead / Manager (Perception) June 2016 - Present
 - o Drove & implemented camera unlocking experience that enables AR content to be triggered by scanning plain images (markers); unlocks thousands of community submitted lenses & high profile integrations like Cheetos scannable commercial (Superbowl LIV), Alex Israel x Snapchat (Art Basel), Vogue x Snapchat (Cannes Lion)
 - o Launched visual classification via Scan Module in Snapchat's Lens Studio which gives AR creators the ability to recognize 500+ object types across 4 categories (Objects, Places, Cars, Dogs) within a Snapchat lens
 - o Drove development of Snapchat's first in-house optical character recognition service used by visual search products and content moderation services (resulted in 240% increase in engagement bait detection)
 - o Drove development of reverse image search capabilities for Scan, and deployed supporting infrastructure including focused web crawling and large scale web archiving / data warehousing solutions.
 - o Authored billion+ scale embedding similarity search engine that powers visual search use cases (e.g. fashion, product, lenses) and content-based machine learning data collection (e.g. visually or audio similar media retrieval)
 - o Trained & deployed multiple computer vision models powering Scan including fine grained scene classifier, sky segmentation, hand detection, logo detection; also contributed to backend services supporting Scan
 - o Contributed to backend & iOS/Android apps for context cards, widgets, search, messaging, friending & web
 - o Managed a mix of core infrastructure and machine learning engineers, actively recruited & defined job roles, grew team from 0 to 9 engineers in 7 months; defined & owned technical roadmap for Perception content understanding
- Amazon.com, Inc.** Seattle, WA
Software Development Engineer II Sept 2011 - June 2016
 - o Developed software for product de-duplication system that continuously improves Amazon.com catalog quality
 - o Contributed catalog validation logic & matching criteria; launched over 30 new Amazon.com product categories
- Carnegie Mellon University** Pittsburgh, PA
Graduate Research Assistant Jan 2010 - August 2011
 - o Conducted research in natural language processing & educational computing applications; resulted in 8 publications
- Space and Naval Warfare Systems Command (SPAWAR)** San Diego, CA
Naval Research Enterprise Intern May 2009 - Aug 2009
 - o Designed experiments & developed text classifiers for use on military chat posts. Results published in ICMLA

SKILLS & TECHNOLOGIES

- **Coding:** Python, Java, Go **Cloud / Dev Tools:** AWS, Google Cloud, Docker, Kubernetes, Spinnaker, Git
- **Machine Learning:** TensorFlow, PyTorch, Kubeflow, Triton **Big Data:** Apache Spark, Airflow, Beam, NoSQL

SELECT TALKS & PUBLICATIONS (3 INDUSTRY TALKS, 12 ACADEMIC PAPERS, 500+ CITATIONS)

- Open-Vocabulary Object Detection Using Captions** CVPR
A Zareian, K Dela Rosa, DH Hu, SF Chang 2021
- MLOps at Snapchat: Continuous Machine Learning with Kubeflow & Spinnaker** Kubecon
K Dela Rosa 2020
- Build accurate training datasets with Amazon SageMaker Ground Truth** AWS re:Invent
V Madan, K Dela Rosa 2019
- Adding intelligence to your JS applications** CascadiaJS
K Dela Rosa 2015
- Topical Clustering of Tweets** ACM SIGIR Workshop on Social Web & Mining
K Dela Rosa, R Shah, B Lin, A Gershman, R Frederking 2011

EDUCATION

- Carnegie Mellon University** Pittsburgh, PA
Master of Computer Science in Language Technologies August 2011
- University of Texas at Arlington** Arlington, TX
Bachelor of Science in Software Engineering & Physics (double major) May 2009