Kevin Dela Rosa

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EXPERIENCE

- **Snap, Inc. (Snapchat)** — Seattle, WA
  Machine Learning Engineering - Tech Lead / Manager (Perception) — *June 2016 - Present*
  - 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)
  - 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
  - Drove development of Snapchat's first in-house optical character recognition service used by visual search products and spotlight content moderation services (resulted in 240% increase in engagement bait detection)
  - 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.
  - 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) used to collect candidate training data for 50^+ use cases (e.g. fine grained facial expression detection, body pose for skeletal tracking, cannabis / drug content classification, pet segmentation, audio scene classification, etc.)
  - 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
  - Contributed to backend & iOS/Android apps for context cards, widgets, search, messaging, friending & web
  - 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*
  - Developed software for product de-duplication system that continuously improves Amazon.com catalog quality
  - 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*
  - 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*
  - 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*