# 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; unlocks thousands of community submitted lenses & high profile partner integrations as seen at the Super Bowl, Cannes Lion, and Art Basel
  - 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 content moderation services for spotlight & maps
  - 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; defined & owned technical road map; named as an inventor on 13 filed patents
- **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, JavaScript    **Cloud / Tools**: AWS, Google Cloud, Docker, Kubernetes, Spinnaker, Git
- **Machine Learning**: TensorFlow, PyTorch, Kubeflow, scikit-learn    **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*