Kevin Dela Rosa

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EXPERIENCE

- **Snap, Inc. (Snapchat)** — Seattle, WA
  Manager, Machine Learning Engineering (Catalog & Intent Understanding @ Monetization) — *June 2016 - Present*
  Staff Machine Learning Engineer / Tech Lead Manager (Multimodal AI @ Perception)
    - Launched Snapchat's first generative AI powered visual enhancement system for product advertisements
    - Drove implementation of camera unlocking experience that enables AR content to be triggered by scanning images; unlocks thousands of community lenses & high profile partner integrations as seen at the Super Bowl & Cannes
    - 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, data collection / labeling & training / fine-tuning process of Snap's in-house video captioner
    - Drove development of Snap's in-house OCR service used by visual product search, platform integrity and content moderation services; improved spam detection by 168%, reduced human labeling in moderation cost by $130k/yr
    - Authored billion$^+$ scale vector 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 & cross-modal retrieval) used to collect candidate training data for 50^+ ML use cases at Snap
    - Trained & deployed computer vision models powering Scan including scene tagger, sky segmentation, hand detection
    - Contributed to backend & iOS/Android apps for context cards, widgets, search, messaging, friending & scan features
    - Owner of machine learning infrastructure track / job family at Snap, defined job requirements and hiring criteria; owned cost goals for org and cut costs by millions of dollars per year; managed relationships with multiple vendors
    - Managed a mix of backend and machine learning engineers; grew team from 0 to 10; promoted multiple engineers
    - 14 patents filed; co-authored 3 publications, gave 2 industry talks, coached speakers for Nvidia GTC & Grace Hopper
- **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
- **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

SELECT TALKS, PATENTS, & PUBLICATIONS (700+ CITATIONS)

- **Video Enriched Retrieval Augmented Generation using Aligned Video Captions** — MRR @ SIGIR
  K Dela Rosa — *2024*
- **Multimodality-guided Image Style Transfer using Cross-modal GAN Inversion** — WACV
  H Wang, P Wu, K Dela Rosa, C Wang, A Shrivastava — *2024*
- **FORB: A Flat Object Retrieval Benchmark for Universal Image Embedding** — NeurIPS
  P Wu, S Wang, K Dela Rosa, DH Hu — *2023*
- **Video matching with a messaging application / US11823456B2** — US Patent
  K Dela Rosa, H Hu, A Huang — *2023*
- **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*
- **Topical Clustering of Tweets** — Social Web & Mining @ SIGIR
  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*