



# JAKE BUGLIONE

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## PROFILE

5+ years of research and development experience in computer vision, machine learning, and data processing.

Proven experience developing and deploying large-scale, innovative, visual search and machine learning solutions for clients.

Results oriented leader with a track record of successfully guiding client driven visual search projects from inception to deployment.

Strong ML Fundamentals, expert in TensorFlow from design to production with solid programming skills.

## SKILLS

Deep Learning  
Machine Learning  
Computer Vision  
Tensorflow  
Keras  
Python  
Java  
C/C#  
Open CV  
GCP

## EXPERIENCE

### SENIOR MACHINE LEARNING ENGINEER • SLYCE • 2018 –

- Designed and implemented cutting edge, convolutional neural network based, visual product search algorithms.
- Maintained and improved these systems currently servicing over 1 million requests per month via scalable cloud platforms.
- Orchestrated collection and processing of data to facilitate creation of the above systems as well as RCNN based object detectors.
- Created a deep metric learning system for kiosks that identifies hardware from retailers such as Home Depot and NAPA .
- Conducted research into metric learning and learning to rank systems and their application in product search.
- Conducted research using word2vec and BERT techniques to facilitate unsupervised deep image caption systems.

### SOFTWARE ENGINEER • 2017 – 2018

- Developed computer human interaction data analysis and decision-making framework for NASA.
- Conducted research regarding a system to derive actionable data regarding vector-borne diseases from remote sensing datasets.

### RESEARCH INTERN • PRINCETON UNIV. • SUMMERS 2012 - 2013

- Led an undergraduate team in building an autonomous aerial vehicle sensor platform.
- Improved an automated gas sensor system using spatial and temporal measurements and data analytics.

## EDUCATION

### M. E. ROBOTICS • 2016 • UNIV. OF PENNSYLVANIA

Thesis: Use of Compton Backscatter X-Ray Imaging in Agriculture  
Focus Areas: Data Analysis, Computer Vision, Machine Learning

### B. S. ELECTRICAL ENGINEERING • 2014 • VILLANOVA UNIVERSITY

Minors in Computer Science and Japanese  
Graduated Cum Laude and Villanova Endowed Scholar  
Capstone Project: Software Based Automated Satellite Tracker