Matthew Cadier Kim

Thorton Hall 912, 1600 Holloway Ave, San Francisco, CA 94132
1 (415) 767-8984
m.cadier.kim@gmail.com

About Me

I build machine vision software for medical applications and backends for image storage. I also do research in combinatorial optimization, matroid theory and submodular functions, and I like to think about combinatorially inspired algorithms. I am also interested in transfer learning and convolutional neural networks for training on medical data.

Work History

Machine Vision Engineer — UCSF Proctor Foundation
San Francisco, CA — May, 2015 - present
Funded by a grand, I investigated and developed a pipeline and machine learning algorithms to classify images of eyelids. I worked with the PI to define the direction of the project and was the principal developer of the grading application.

Lecturer in Mathematics — San Francisco State University
San Francisco, CA — September, 2014 - December, 2015
I was the principal instructor for several sections of college algebra and precalculus. I helped develop and administer a large online calculus course for 200+ students.

Data Scientist — Argyle Data
San Mateo, CA — June, 2014 - February, 2015
I prototyped statistical machine learning algorithms for time series analysis and fraud detection in network data as well as implemented production versions in Java.

Languages/ Tools

English French (Fluent) Java Python Matlab Julia C++
working with: AWS OpenCV Scikit-learn

Papers

A Characterization of Generalized Permutohedra for the Classical Reflection Groups, 2015, (thesis)

Discriminating Eyelids with Trachomatous Inflammation - Follicular, with Dr. Travis Porco and Dr. Kazunori Okada, 2015, (in progress)

Education

SFSU: MA , Mathematics, 2015
SFSU: BA , Philosophy, Mathematics, Computer Science, 2012
University of Paris 1 Pantheon la Sorbonne: Visiting Student , Philosophy, Logic, Mathematics, 2009-2011