

Programming Languages

Most experience in: Python, JavaScript
Some experience in: SQL, C, MATLAB

Frameworks/Libraries

Python: Django, scikit-image, scikit-learn
JavaScript: React

Projects

Lip Colour Finder - lips.kyleingraham.com

Python, Django, dlib, scikit-image, JavaScript, React, NGINX, Gunicorn, Ubuntu

- Given a photo of a face, Lip Colour Finder will determine the colour of the lips on that face through face/feature detection, computer vision-based skin detection, and computer vision processing.
- I implemented a histogram-based dynamic-threshold skin detector for refinement of lip colour estimates using Python, dlib, and scikit-image.
- I implemented a mobile-friendly, consistent, and performant frontend in JavaScript/React that prioritizes fast site loads and low interaction latency.
- I profiled my image analysis code and achieved a 5-8% speedup by optimizing selection of image regions for colour space conversion.
- I deployed the application to an Ubuntu/NGINX/Gunicorn platform with a configuration that adheres to security best practices.

Education

Master of Engineering in Electrical and Computer Engineering

Queen's University, Kingston, ON, Canada

Jun 2012

Bachelor of Science in Electrical Engineering

Queen's University, Kingston, ON, Canada

Jun 2010

Courses

Machine Learning by Stanford University on Coursera

Grade Achieved: 100%

Oct 2017

Professional Experience

Designer - Electrical

Smith and Andersen Consulting Engineering, Toronto, ON, Canada

Aug 2017 – Nov 2018

- Managed new-branch electrical design/construction administration Canada-wide for a top-3 Canadian bank.

Project Manager

Baha Mar Ltd., Nassau, The Bahamas

Mar 2016 – May 2017

- Mediated \$250,000 purchase of improved intake filters for \$22 million cooling plant. I prevented the repurchase of defective filters by making the case for long-term stability over short-term savings.