

## ANDREW PORT

Santa Cruz, CA

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<https://github.com/mathandy/mathandy.com>

PhD Student in **Computer Engineering**, UC Santa Cruz

M.S in **Applied Mathematics**, UC Davis

B.S in **Mathematics**, Worcester Polytechnic Institute

Northfield Mount Hermon High School

Summer Availability: June 14 - Sept 17

## PROFILE

Researcher and PhD student working in UCSC **Computer Vision** Lab on **deep learning** models for a variety of tasks. Strong background in **mathematics**. Expert **python** coder. Confident with writing and communication. Looking for summer (and longer) internship opportunities that will provide practice working with deep learning techniques.

## RECENT EMPLOYMENT

(2017-Current) **Researcher & TA @ UCSC Computer Vision Lab: UC Santa Cruz**

PhD student working in the computer vision lab on deep learning models for indoor localization, ecological applications, and assistive devices (e.g. sensory substitution devices). Please see [mathandy.com](https://mathandy.com), for details on my current projects.

(2019 Summer and Fall) **AI Research Intern @ FXPAL**

Proposed and developed a semi-supervised deep learning model involving image embedding, geometric preservation, facial recognition, and audio synthesis. First author on a related patent filed by FXPAL and publication submitted to NeurIPS, as well as second author on a publication submitted to AACV.

Recipient of the “esteemed judges’ choice” award @ FXPAL 2019 Hackathon.

(2018-2019) **Senior Technology & Software Intern @ Rare.org**

Lead development of deep learning-based computer vision technology for monitoring fishery spatial population distributions in Belize and Honduras. This work required development use of convolutional neural network models for semantic segmentation, contour-based image classification, keypoint detection as well as non-ML steps like color correction and rectification. Also worked with biologists to design data collection and analysis methodology.

Media coverage: <https://news.ucsc.edu/2019/07/conservation-ai.html>

## NOTEWORTHY INDEPENDENT PROJECTS

**svgpathtools** (2016): Creator of the somewhat popular (166,000+ downloads from PyPI) and actively contributed to library of object-oriented tools for manipulating SVG Path objects and Bezier curves in Python -- <https://pypi.python.org/pypi/svgpathtools>

## HONORS AND AWARDS

**FXPAL Hackathon Esteemed Judges’ Choice Award** – Awarded for deep learning related research. More details to be added pending patent and paper publication.

**NSF VIGRE Summer Graduate Fellowship** – Awarded for research in geometric invariant theory by the UC Davis Mathematics Department.

**WPI Provost Major Qualifying Project award for Mathematical Sciences** – Awarded for research modeling fibroblast cell movement. This is the WPI math department’s version of a “best senior thesis” award.

## HOBBIES

Songwriter, guitarist, and vocalist – mostly bluesy rock, pop, and bluegrass