Daniel Lowengrub

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EXPERIENCE

UC Berkeley, Berkeley — *Mathematics PhD Candidate*

September 2013 - PRESENT

I do research in the field of algebraic geometry, with an emphasis on applications to non-convex optimization and machine vision. Here is a link to one of my research papers on camera triangulation.

Autodesk, San Francisco — *Data Scientist Intern*

May 2015 - September 2015

Designed and implemented a system to classify and retrieve 3D objects. It has been incorporated into Autodesk's flagship Autocad software.

Ping, Berkeley— *Machine Learning Intern*

April 2017 - Present

Automated the generation of task codes for legal billing systems and built a server that codes narratives via a post request. Built a named entity recognition system for legal narratives.

EDUCATION

UC Berkeley, Berkeley — *PhD Candidate*

September 2013 - Present

Mathematics

Hebrew University of Jerusalem, Israel — *B.S*

October 2010 - August 2013

Mathematics, Computer Science

PROJECTS

Sports Analytics — *Sports Stats from Video*

Built a system to track soccer players in live broadcast video and generate player analytics. Here is a video of the system in action.

Linux Memory Management — *Patch to the Linux Kernel*

Added a patch that improved the efficiency of the search for available memory during the virtual memory allocation process.

Voice Assistant— *Voice Controlled Cooking Assistant*

Built a system that allows you to follow any online recipe by voice. You can try it out here: cook.euclideum.com

SKILLS

Machine Vision

Mathematical Research

Algebraic Geometry

Deep Learning

Data Science

Software Engineering

Geometry

Image and Video Processing

Natural Language Processing

AWARDS

Berkeley Fellowship award for outstanding graduate students

Dean's Prize for excellence in undergraduate studies

Programming Languages

Python, Javascript, Java, C++, C

Libraries I Use Daily

numpy, tensorflow, matplotlib, opencv, pandas, scikit-learn, keras, nltk, gensim