

Alejandro Stawsky

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Education

Technion — Israel Institute of Technology
MSc Applied Mathematics (ongoing)

University of California, Santa Barbara (UCSB)
B.S. Applied Mathematics, GPA 3.66
Dean's Honors (College of Letters and Science)

Université de Bordeaux III

Courses (in French): Point-set Topology, Lebesgue Integration, Number Theory, Linear Algebra 2 and Cryptology.

Senior Thesis — 2017

Creating a framework to simulate the sediment and debris flow of mudslides

The goal of this project is to reorient a mathematical model previously used to measure the effects of different Numerical Methods on eroding mountain surfaces, to simulate, principally, the sediment and mud flow of the Montecito/Santa Barbara Mudslides of January 2018. A how-to guide was created for gathering and manipulating data from the US Geological Survey into a Digital Elevation Model (DEM) that can be used as an initial surface. Then the new framework of the old model was explained, including examples from a simulation using the Montecito/Santa Barbara mountains. Finally, a comparison of the results from this simulation and the post-mudslide geological analysis by the USGS are discussed, along with suggestions of future applications and improvements to the old model.

Employment

Student Researcher, November 2018

Optimized the parameters and scaling of the Mudslide Simulation model presented in my Senior Thesis. Worked with the Center for Complex and Nonlinear Science (CNLS), principally Björn Birnir, and used the Knot Clusters at the UCSB Center for Scientific Computing.

Math Tutor in France, October 2016 — May 2017

Tutored high school and first-year university students on Calculus/Analysis, Linear Algebra, Matlab and Python.

Paid Financial and Sales Intern at Kplans Inc., July — October 2015

Became an integral part of a financial analyst group alongside 401(k) advisors to gain hands-on experience in not only the stock, bond, and insurance market but also sales conferences

and networking. Created and implemented spreadsheets using statistics in a competitive financial setting.

Skills Proficient in Matlab, Python, R, Latex and C++

Languages Fluent in English, Spanish and French with some knowledge in Hebrew and Portuguese.

Membership **Music Connection, September 2015 – Present**
Volunteer group that plays at homeless shelters, old-age homes and hospitals. I am the guitar player and singer for the Acoustic and Jazz Squad.