Juan José Neri

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EDUCATION

LOYOLA MARYMOUNT
Expected May 2019 | Los Angeles, CA
Cum. GPA: 3.90

B.S. in Applied Math
Advisor: Thomas Laurent
GPA: 3.96

B.S. in Computer Science
Advisor: Ray Toal
GPA: 3.87

Minor in Physics
Advisor: David Berube
GPA: 4.0

STANFORD UNIVERSITY
Jun - Aug 2017 | San Francisco, CA
Summer Session 2017
GPA: 3.70

UDELAR
Feb - Jul 2015 | Montevideo, Uruguay
Electrical Engineering
GPA: N/A

LINKS

Website:	juanjoneri.com
Github:	juanjoneri
LinkedIn:	Juan José Neri
Facebook:	juanjoneri96

SKILLS

PROGRAMMING
Advanced :
Python (Sklearn, TensorFlow, Pytorch, NumPy, Pandas) · Bash (Ubuntu, MacOS) MATLAB · Java · Git · Web (JS, CSS, HTML)
Intermediate:
C++ · LaTeX · SQL · Mathematica
Basic:
WebGL · Elm · Neo4J · MongoDB

LANGUAGES
Proficient:
Spanish · English
Basic:
German

RESEARCH

RAINS | Community Detection in Large Social Networks
Jan 2018 – Present | Department of Mathematics | Supervisor: Dr. Laurent
· Finish writing paper: "A New Algorithm for Community Detection in Large Social Networks"
· Migrate the new graph partitioning algorithm to Python's high performance machine learning libraries TensorFlow and Pytorch.

UROP | Community Detection in Large Social Networks
Aug 2017 – Dec 2017 | Department of Mathematics | Supervisor: Dr. Laurent
· Begin writing paper: "A New Algorithm for Community Detection in Large Social Networks"
· Build a python module for manipulating and visualizing large connected graphs.

RAINS | Community Detection in Large Social Networks
Jan 2017 – May 2017 | Department of Mathematics | Supervisor: Dr. Laurent
· Implement a new algorithm for state of the art graph clustering in large social networks using MATLAB
· Conduct a thorough study of its mathematical properties. We show that it monotonically increases a quality function.

TEACHING EXPERIENCE

TA SUPERVISOR | Mathematics department
Jan 2017 – Dec 2017 | Loyola Marymount University
Work directly with the head of the Math department and TA body to help manage the TA program and ensure that it overall runs smoothly.

ROBOTICS TEACHER | High School
May 2016 – Aug 2016 | Colegio Seminario
Teach the basics of circuit design, python3 programming, version control, and Linux command line in the context of Raspberry Pi 3 to advanced high school students.

LAB ASSISTANT | Mathematics / Physics Department
Aug 2017 – Present | Loyola Marymount University
· Phys 201 Introduction to Electricity and Magnetism.
· MATH 103 Excel lab, computer spreadsheets, probability and statistics, and the mathematics of finance.

MULTIVARIABLE CALCULUS TUTOR | Mathematics Department
Jan 2016 – Dec 2013 | Loyola Marymount University
Help students with homework on Partial derivatives, multiple integrals, vectors in two-and-three-dimensional space, line integrals, etc.

GRADER | Mathematics Department
Sep 2016 – Present | Loyola Marymount University
Grade homework for MATH 103, 104, 123, 131, 245

COURSEWORK

MATHEMATICS
Probability / Stats
Real Analysis
Complex Variables
Group Theory
Methods of Applied Math
Numerical Methods
Putnam Preparation

COMPUTER SCIENCE
Machine Learning
Artificial Intelligence
Data Structures
Algorithms
Programming Languages
Computer Graphics
Interaction Design
Database Systems

PHYSICS
Elementary Particle Physics
Space Physics
Intermediate Mechanics

CERTIFICATES

LANGUAGES
Cambridge English Proficiency (CPE)
Certificate in Advanced English (CAE)
First Certificate in English (FCE)
Young Learners Course (ih)
Intermediate German II (LMU)

ONLINE COURSES
Udacity
Intro to Machine Learning
How to Use Git and GitHub
Lynda.com
Building and Deploying Deep
Learning Applications with
TensorFlow
NumPy for Data Science
Pandas for Data Science
Python GUI Development
Raspberry Pi: GPIO
Linux: Multitasking
Unix for Mac OSX
Bash Scripting
Android App Development
Learning Mathematica 10
Udemy
Become an Android Developer from
Scratch

RESEARCH INTERESTS

Machine Learning · Artificial
Intelligence Cloud Computing ·
Embedded Systems

PROJECTS

BAMBINAIA | Web app using Google's Polymer and Firebase
June 2017 – Dec 2017 | LMU | Database final group project
Implement Website for pairing nannies and mothers in real time using
Google's new Polymer 2.0 front end library for web components with
JavaScript and Google's firebase API for database management.

IOIO QUADCOPTER | Android powered Drone via IOIO board
Jan 2014 – Jun 2014 | UDELAR | Group project
Use sensors in an Android phone to establish a closed loop control system
for a drone. The phone communicates with the rotors using the IOIO OTG
board and updates the speed of each one 60 times a second using a PID
model with the data collected from the gyroscope and accelerometer.

LIFELOG | Android app using SQLite and Dropbox's API
Sep 2015 | Personal project
Build and android app using Android Studio, Dropbox API and Wolfram
Mathematica, to keep track of my daily routine and expenses on an SQLite
database.

QUANTUM DROPLETS | Quantum phenomena using Arduino
Nov 2016 – May 2017 | LMU | SPS Chapter Project
Visualize and better understand the De Broglie–Bohm, pilot-wave
interpretation of Quantum Theory with fluids on a vibrating surface.
Granted an SPS Chapter Research Award in 2017

WORK EXPERIENCE

STUDENT RESERVE BOARD
Sep 2016 - May 2017 | LMU
Member of the board that assigns financial assistance to University clubs
and organizations through the co-sponsorship of events and activities

INTERNATIONAL OUTREACH
Sep 2016 - May 2017 | LMU
Assist prospect international students with the application process to
Loyola Marymount University.

AWARDS

Year	Org	Award
2018	LMU	Dean's List, all semesters
2017	SPS	Chapter Research Award
2017	LMU	Student Organization of the Year (RCC)
2015	LMU	Full Scholarship for Outstanding South American Students
2014	OEI	Iberoamerican Olympiad, Uruguay physics delegation member
2014	mec	Physics National Olympiad 2nd Place

ORGANIZATION MEMBERSHIPS

Year	Role	Organization
2017	Member	Society of Industrial and Applied Mathematics (SIAM)
2017	Member	Society for Advancement of Hispanics in Science (SACNAS)
2016	Co-founder	Radio Control Club (LMU RCC)
2015	Co-founder	Society of Physics Students (LMU SPS)
2015	Member	Engineers Without Borders (EWB)
2015	Member	Program for an Engineering Education Community (LMU

CONFERENCES

Year	Location	Conference
2017	USC	Southern California Machine Learning Symposium
2017	Utah	SACNAS Annual Conference
2017	UCSB	Pacific Coast Gravity Meeting
2016	Caltech	Southern California Machine Learning Symposium
2016	San Francisco	PhysCon 2016