

# Juan José Neri

www.juanjoneri.com

juanjo.neri@gmail.com | (213) 274 5685 | 1 LMU Dr. MSB 5130

## EDUCATION

### LOYOLA MARYMOUNT

Exp Dec 2018 | Los Angeles, CA  
Cum. GPA: 3.90

### B.S. IN COMPUTER SCIENCE

GPA: 3.96

### B.S. IN APPLIED MATHEMATICS

GPA: 3.87

### STANFORD UNIVERSITY

Jun - Aug 2017 | San Francisco, CA

### SUMMER SESSION 2017

Cum GPA: 3.70

## LINKS

Website: [juanjoneri.com](http://juanjoneri.com)  
Github: [juanjoneri](https://github.com/juanjoneri)  
LinkedIn: Juan José Neri  
Instagram: [juanjo.neri](https://www.instagram.com/juanjo.neri)  
Quora: Juan Neri

## SKILLS

### PROGRAMMING

#### ADVANCED:

Python (Sklarn, TensorFlow, Pytorch, NumPy, Pandas) · Bash · Java · Git · JavaScript · CSS (Bootstrap 4) · HTML (Jinja2) · C++ · MATLAB

#### INTERMEDIATE:

Django · Flask ·  $\text{\LaTeX}$  · SQL

#### BASIC:

WebGL · Elm · Neo4J · MongoDB

### LANGUAGES

#### PROFICIENT:

Spanish · English

#### BASIC:

German

## PROJECTS

### OLIVE | PROGRAMMING LANGUAGE FOR DATA SCIENTISTS

Jan 2018 – Present | LMU | Compilers group project

Designed and implemented a programming language that combines the expressiveness and power of Python with the first class support for matrix and array mathematics of languages like Julia and MATLAB.

### BAMBINAIA | WEB APP BACK-END AND FRONT-END

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

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 WITH SQLITE AND DROPBOX'S API

Sep 2015 | Seminario High-school | 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.

## RESEARCH EXPERIENCE

### SURP | CAUSAL COGNITIVE NETWORKS

Feb 2018 - Present | CS Department | Supervisor: Dr. Forney

- Create a new technique that fuses the strengths of Causal Inference and Deep Learning in what we refer to as a Causal Cognitive Network.
- Implement a working prototype using deep learning framework Pytorch to test against the two popular approaches.

### RAINS | NEW ALGORITHM FOR COMMUNITY DETECTION

Jan 2017 – Jan 2018 | Mathematics Department | Supervisor: Dr. Laurent

- Implement a new unsupervised learning algorithm for graph clustering using python's high performance machine learning libraries TensorFlow and Pytorch
- Build a python modules for creating, manipulating and visualizing large connected graphs, used to conduct a thorough study of its mathematical properties.

## AWARDS

2018	LMU	Highest achieving CS student at LMU: Best GPA in major
2018	LMU	Pi Mu Epsilon Mathematics Honor Society
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

## 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

## CERTIFICATES

### LANGUAGES

Cambridge English Proficiency  
Certificate in Advanced English  
First Certificate in English  
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
- Bash Scripting
- Learning Regular Expressions
- Learning REST APIs
- Learning Django
- Android App Development

#### UDEMY

- Python and Django Full Stack Web Developer Bootcamp
- Become an Android Developer from Scratch

## WORK EXPERIENCE

### TA SUPERVISOR | MATHEMATICS DEPARTMENT

Jan 2017 – Dec 2017 | Loyola Marymount University | Los Angeles, CA  
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.

### STUDENT RESERVE BOARD | LMU STUDENT GOVERNMENT

Sep 2016 - May 2017 | Loyola Marymount University | Los Angeles, CA  
Member of the board that assigns financial assistance to University clubs and organizations through the co-sponsorship of events and activities

### ROBOTICS TEACHER | SEMINARIO HIGH SCHOOL

May 2016 – Aug 2016 | Colegio Seminario | Montevideo, UY  
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 | LMU MATHEMATICS & PHYSICS DEPARTMENT

Aug 2017 – Present | Loyola Marymount University | Los Angeles, CA

- Phys 201 Introduction to Electricity and Magnetism.
- MATH 103 Excel lab, computer spreadsheets, probability and statistics, and the mathematics of finance.

### ADMINISTRATIVE PROJECT COORDINATOR | LMU

#### INTERNATIONAL OUTREACH

Sep 2016 - May 2017 | Loyola Marymount University | Los Angeles, CA  
Assist prospect international students with the application process to Loyola Marymount University.

### MULTIVARIABLE CALCULUS TUTOR | MATHEMATICS DEPARTMENT

Jan 2016 – Dec 2016 | Loyola Marymount University | Los Angeles, CA  
Help students with homework on Partial derivatives, multiple integrals, vectors in two-and-three-dimensional space, line integrals, etc.

### MATH GRADER | MATHEMATICS DEPARTMENT

Sep 2016 – Present | Loyola Marymount University | Los Angeles, CA  
Grade homework for MATH 103, 104, 123, 131, 245

## ORGANIZATION MEMBERSHIPS

2017	Member	Society of Industrial and Applied Mathematics (SIAM)
2017	Member	Society for Advancement of Hispanics (SACNAS)
2016	Co-founder	Radio Control Club (LMU RCC)
2015	Co-founder	Society of Physics Students (LMU SPS)
2015	Member	Program for an Engineering Education (LMU PEEC)

## CONFERENCES

2018	LMU	Undergraduate Research Symposium
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