Guillermo Angeris

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EDUCATION

STANFORD UNIVERSITY

BS, MS in Electrical Engineering
Expected June 2018 | Palo Alto, CA
Conc. in Photonics and Condensed-Matter
MS in Optimization and Control
School of Engineering
Cum. GPA: 3.9 / 4.0
Transcript provided on request.

SEVEN LAKES HIGH SCHOOL

Graduated June 2014 | Katy, TX
General High School Diploma
Cum. GPA: 4.0/4.0

COURSEWORK

UNDERGRADUATE

Convex Optimization
Machine Learning
Artificial Intelligence
Approximation Algorithms
Optical Micro and Nano-Cavities
Topological Data Analysis
Digital Systems Architecture
Honors Game Theory
Linear Dynamical Systems
Quantum Mechanics
Decision-Making Under Uncertainty*
(* In progress)

SKILLS

PROGRAMMING

Advanced
Python • LaTeX
Intermediate
HTML • CSS • JavaScript • R •
Matlab/Julia • C/C++ • Java • Verilog
Some Familiarity
Android • Assembly (ARM)

LINKS

Github:// **@guillean**
LinkedIn:// **guillean**
Quora:// **Guillermo-Andres-Angeris**
Physics SE://**guillermo-angeris**
Personal://**guille.site**

INTERESTS

Piano (5+ years of formal training) • Viola • Physics • Mathematics • Electronics • Optimization

EXPERIENCE

STANFORD | EE/CME 103 Teaching Assistant

Autumn 2015; Autumn 2016; Autumn 2017 | Palo Alto, CA
EE/CME 103 is a course on introductory linear algebra with applications to optimization by least squares taught by **Prof. Stephen Boyd**. It covers regularized LS, constrained LS, and non-linear least squares and applications thereof in areas of machine learning and control systems, among other fields.

D.E. SHAW RESEARCH | Scientific Associate Intern

Summer 2016; Summer 2017 | New York, NY
(2016) Worked on methods in topological data analysis and discrete differential geometry in order to understand conformational changes in proteins and similar molecules. Researched methods to automatically identify such conformational changes in order to aid ligand and drug discovery searches.
(2017) Worked on information-limited distance-preserving labelling schemes on graphs in order to speed up molecular dynamics simulations; proposed alternatives to current algorithms which are currently in use.

STANFORD | EE 364 Teaching Assistant

Spring 2017 | Palo Alto, CA
EE 364 is a course on convex optimization taught by **Prof. Stephen Boyd**. It covers most general aspects of convex optimization and theory along with techniques for computational solutions. Some topics include: duality, convex relaxations, and applications such as portfolio management, trajectory optimization, and image processing.

RESEARCH

STANFORD | Brains in Silicon Lab

Summer 2015 - Present | Palo Alto, CA
Ongoing research on algorithms for mathematical modelling of neural spiking **Prof. Tatiana Engel** which unifies current outstanding neurobiological models [*e.g.* see Latimer, *et al*., 2015] under a single picture. An initial poster presentation for the research project, *Neural Spiking as a Diffusion Process*, can be provided on request. A current paper draft, currently under heavy editing, can also be provided on request.

STANFORD | Nanoscale and Quantum Photonics Lab

Spring 2017 - Present | Palo Alto, CA
Ongoing research on fast optimization algorithms for simultaneous simulation and optimization (i.e. inverse design) of photonic crystals and lenses with applications to virtual reality under both **Prof. Jelena Vuckovic** and **Prof. Stephen Boyd**.

AWARDS

2017	2nd place	Stanford Citadel Datathon
	1st/3rd place	Stanford University Puzzle Hunt (Student/Overall)
	Best Hardware Hack	Stanford University WiCS Hackathon
2016	1st place	Stanford University Praetorian Security CTF
2015	Top 5%	Stanford University Presidential Award
	3rd place	Google Games Bay Area Competition (Java)
	Finalist (Top 8)	Stanford *TreeHacks* Hackathon Competition (JS/Python)

CLUBS/ACTIVITIES

2017	Stanford AIR	Project lead for autonomous path-planning
2016	Kairos Society	Accepted as a Kairos Society member
2015	Project Leader	Project lead for Stanford IoT (Internet of Things)
2014	Pianist	Pit Orchestra Pianist for Stanford's Gaieties