luisperez

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education

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languages

english - proficient spanish - conversational french - fluent

technical toolbox

♥ OCaml Python, C, PHP SQL, Javascript (jQuery) CSS3 & HTML5 ŁTFX, RStudio

operating systems

Windows 8/7/Vista/XP Linux (Ubuntu,Fedora) Max OS X

web dev

actonadream.org lperez.site44.com **Bachelor** of Arts

Harvard College, Cambridge (August 2012–Present)

Concentration in Computer Science with Secondary Field in Mathematics. Detur Prize Winner, John Harvard Scholar

Relevant Coursework: Theory of Computation, Data Structures and Algorithms, Systems Programming, Machine Interfaces, Real Analysis, Abstract Linear Algebra

GPA: 3.956/4.0

Concentration GPA: 4.0/4.0

Dual Credit Student

Stephen F. Austin State University (August 2011–May 2012)

Completed courses in government and mathematics at local university while concurrently enrolled in high school.

Overall GPA: 4.0

Student of General Studies

Nacogdoches High School, Nacogdoches (August 2008–May 2012)

Graduated as Valedictorian with Highest Honors in Core Courses.

GPA: 106.56 | SAT (M,R,W): 790, 800, 800 | Subject Tests (MI & MII, Phy.): 790,800, 800 | ACT (R, M, En, Sc): 34, 36, 34, 35

experience

HARVARD FOREST

Petersham, Massachusetts (May 2014–August 2014)

Software Developer: Worked with Barbara Lerner and Emery Boose, using R, Apache Ant, Java, and git/svn. Achievements: (1) developed data provenance collection software for the R Scripting environment, (2) developed extensive system tests with Apache Ant, (3) assisted in improving the visualization of data derivation graphs using Java, and (4) setup Git and SVN framework for version control.

WYSS INSTITUTE

Cambridge, Massachusetts (May 2013 – August 2013)

1st Year Student Researcher: Lead assistant to Dr. Paul Kassabian and Justin Werfel in exploring decentralized, collective construction. Achievements: (1) explored decentralized algorithms for the construction of complex structures, (2) developed Python physics-based simulation based on SAP2000, interfaced using PyWin32, and (3) presented results to group of peers and professional researchers.

BUREAU OF STUDY COUNCIL

Cambridge, Massachusetts (January 2013–May 2013)

OPT Tutor: Tutored students in a varied array of mathematical subjects covering classes from Single Variable Pre-Calculus to Multi-variable Calculus (Math 21a). Topics touched on include but are not limited to dot product, cross product, polar and spherical coordinates, partial derivatives, Stokes' Theorem, Green's Theorem, and Divergence Theorem.

ALLELUIA HILLS RANCH

Nacogdoches, Texas (August 20010–August 2012)

Ranch Hand: Maintained upkeep of ranch. Duties included feeding horses, mowing, watering, cleaning debris, and odd jobs necessary for the well-being of animals.

leadership

SCHOOL OF ENGINEERING AND APPLIED SCIENCES

Cambridge, Massachusetts (August 2013 - Present)

Teaching Fellow and Course Assistant: Taught class of 20 students to program in C, PHP, JavaScript and SQL. Introduced basic object-oriented concepts as well as memory management/hierarchy and good programming practices. Assisted all students (700) with weekly problem sets. Graded problem sets and exams.

HARVARD MATHEMATICS DEPARTMENT

Cambridge, Massachusetts (August 2013-Present

Course Assistant: Co-taught linear algebra course with Simon Schieder to class of 30 students. Main concepts: kernels, images, transformations, vector spaces, and Fourier analysis. Co-taught introductory calculus course with Kate Penner. Main concepts: Riemann sums, integration, infinite series, differential equations and dynamical systems. Graded problem sets.

THE HARVARD CRIMSON

Cambridge, Massachusetts (January 2013-Present)

Technology Associate: Maintained The Harvard Crimson website, along with HighRise advertisement database. Utilized Django with administrative interface hosted on Amazon SW3. Heroku development server and git version control.

ACT ON A DREAM AT HARVARD COLLEGE

Cambridge, Massachusetts (August 2012-Present)

Director of Public OutreachWebdeveloper of Act On A Dream, a site dedicated to sharing valuable resources with undocumented students @ Harvard and their allies. As Director of Public Outreach, managed communication with external groups as well as organizing educational events.

awards

Detour Book Price

Harvard Faculty (Fall 2013, Fall 2014)

Awarder to sophomores/juniors who have attained very high academic standing at the end of their freshman/sophomore year.

John Harvard Scholar

Harvard College (Fall 2013, Fall 2014)

Awarded to students in the top 5% of their class.

AP Scholar with Distinction

CollegeBoard (Spring 2012)

Awarded to student with four or more passing AP Scores.

Outstanding Senior Award

Nacogdoches High School (Spring 2012)

Awarded to best student in graduating class.

National Laureat Certificate

National French Contest (Spring 2011)

Awarded to top 10 in National French Contest.

Placed in IB Biology Examination

Stephen F. Austin State University (Fall 2009)

Awarded for 3rd Place.

programming projects

Automatic Mailing System

Pet Project, Summer Internship (Summer 2014)

Implementation of Edit Distance Dynamic programming algorithm for auto-email program.

Quantum Tunneling - MatLab

PS10 - Quantum Chemistry (December 14, 2013)

MatLab simulation for transmittance probability of particle through barrier, with varying conditions. **Decentralized Intelligence Project - Python**REU Program @ Harvard (August 17, 2013)

Simulation of decentralized robotic construction using SAP 2000 and Python.

Simplex Algorithm Implementation - OCaml

Final Project, Computer Science 51 (Spring 2013)

Implementation of Simplex algorithm in ML. Features: (1) arbitrary precision floats, (2) custom matrix library, (3) unsolvable and unbounded problem identification.

Harvard Discuss Website - JavaScript, HTML/CSS, SQL, PHPFinal Project, Computer Science 50 (Fall 2012) Created Harvard Discuss, a website focused on encouraging student collaboration through on-line discussion forums for individual classes and sections. Used Official Harvard Course Data to create individual sub-forums for each course and provide detail.

interests

professional: data analysis, mathematics, research, company profiling, community organizing, web/software design, robotics, machine learning

personal: chess, soccer, science fiction, philosophy, video production, photo editing, singing, foosball, running, poetry,

Perez, Luis Antonio | HARVARD COLLEGE | Cambridge, Massachusetts 02138

Admitted in 2012 from NACOGDOCHES HIGH SCH $\,$

Status: Good Standing

Field: Computer Science

Date of issue: August 29, 2014

Not official unless signed and sealed

	COURSE TITLES	GRADE	COURSE TITLES	GRADE
		_ full half		full ha
	2012-2013			
'RSEMR 23U	Gravity in Extremes	SAT		
COMPSCI 50	Intro to Computer Science I	Α		
IATH 21A	Multivariable Calculus	Α		
XPOS 10.003	Intro to Expository Writing	Α		
IATH 21B	Linear Algebra & Differntl Equa	Α		
RENCH 50	Upper-level French II	Α		
OMPSCI 51	Intro to Computer Science II	Α		
XPOS 20.167	Expository Writing 20	Α		
ANNUAL GPA: 4.000 COURSES PASS		SED: 4.00		
	2013-2014	 		
OMPSCI 121	Intro to Theory of Computation	Α		
NGLISH 182	Science Fiction	A-		
IATH 121	Linear Algebra and Applications	Α		
HYSCI 10	Quantum & Statistical Found Che	Α		
IATH 112	Introductory Real Analysis	Α		
CI-LIVSYS 20	Psychological Science	Α		
COMPSCI 124	Data Structures and Algorithms	Α		
RENCH 55	Business French	A-		
ANNUAL GPA: 3.	.918 COURSES PASS	SED: 8.00		
UMULATIVE GP	A: 3.956 SATISFACTORY LETTER GRAD	DES: 7.50		
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