Remy E. Goldschmidt

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Education

University of Illinois at Urbana-Champaign, class of 2018
Major: Bachelor of Science in Aerospace Engineering
Pelham Memorial High School, class of 2014

Work Experience

Duke University Neutrino Group 2012-2013

- Designed data analysis software using ROOT, Geant4, and MATLAB
- Determined the rate of neutrino/muon coincidence events in Super-Kamiokande
- Mentor: Dr. Kate Scholberg

Columbia University Applied Physics / Applied Math 2013-2014

- Designed and built a sealed standing-wave thermoacoustic refrigerator
- Studied the effect of waveform input on efficiency in thermoacoustics
- Mentor: Dr. I. C. Noyan

Activities

Rocketry 2008-2011

- Constructed three high-power model rockets using composite materials
- Designed GPS-logging avionics for these rockets

Columbia University Science Honors Program 2012-2014

Open Source Programming

- Optimal component-value finder for oscillator circuits 2011
- 2D Lagrangian inverted pendulum model in Haskell 2011
- Banner generator for TeamSpeak server in Haskell 2013
- 2D top-down RPG game engine written in Racket 2014

University of Illinois ACM SIGPLAN 2014-

- Founder and chair
- Group for discussion of programming language theory and related subjects

Awards

Team America Rocketry Challenge - National Finalist 2011
Westchester ISEF - Association of Geoscientists Award 2013
Westchester ISEF - 4th Place in Engineering 2014

Skills

Languages:	English (native), Latin (intermediate)
Computer Languages:	Haskell (4 yrs), Clojure, Java, Python, MATLAB, LaTeX
Software:	Linux (8 yrs), GNU toolchain, ROOT, git
CAD:	SolidWorks, NX, EAGLE
General:	Microsoft Office / LibreOffice, Emacs

Education

Courses taken

CHEM 102/104	Chemistry I/II
CS 101	Introduction to Computing
IB 150 / MCB 150	Biology I/II
HIST 171/172	US History I/II
MATH 221/231	Calculus I/II
PHYS 211	Physics: Mechanics
PHYS 212	Physics: E&M
RHET 105	Writing and Research
STAT 100/200	Statistics I/II

Current courses

AE 100	Introduction to Aerospace Engineering
AE 199	Aerospace Computer Aided Design
MATH 241	Multivariable Calculus
MSE 280	Engineering Materials
TAM 210	Introduction to Statics

Courses expected by year end

AE 202	Aerospace Flight Mechanics
CS 125	Introduction to Computer Science
CS 173	Discrete Structures
CS 225	Data Structures
ECE 205/206	Electronic Circuits
MATH 285	Differential Equations
TAM 212	Introductory Dynamics

Other Courses

Columbia Science Honors Program

Relativity and Quantum Mechanics	Fall 2012
Computer Programming in Java	Spring 2012
Mathematical Methods in the Physical Sciences	Spring 2013
Astronomy and Astrophysics	Fall 2013
Group Theory	Spring 2014