

Remy E. Goldschmidt

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Education

University of Illinois at Urbana-Champaign, class of 2018
Major: Bachelor of Science in Aerospace Engineering
Minor: Computer Science
GPA: 3.46

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
- Server status generator written in Haskell 2013
- 2D top-down RPG game engine written in Racket 2014
- Compiler / interpreter for a simple language 2015

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), ROOT, git
CAD:	SolidWorks, NX, EAGLE
General:	Microsoft Office / LibreOffice, Emacs

Education

Courses taken

CHEM 102/104	Chemistry I/II
PHYS 211/212	Physics: Mechanics / E&M
STAT 100/200	Statistics I/II
MATH 221/231/241	Calculus I/II/III
AE 100	Introduction to Aerospace Engineering
AE 199	Aerospace Computer-Aided Design
MSE 280	Engineering Materials
TAM 210	Introduction to Statics
CS 125	Introduction to Computer Science

Current courses

AE 202	Aerospace Flight Mechanics
CS 422	Programming Language Design
ECE 205	Electronic Circuits
ME 300	Thermodynamics
TAM 212	Introduction to 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