

# Evan Hubinger

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CONTACT INFORMATION	evanjhub@gmail.com https://github.com/evhub (925) 240-3826	340 E. Foothill Boulevard Box 409 Claremont, CA 91711	
EDUCATION	Harvey Mudd College, Claremont, CA B.S. in Mathematics and Computer Science  The College Preparatory School, Oakland, CA	Expected Graduation: May 2019 GPA: 3.856 (Dean's List)  Graduated: May 2015	
PROGRAMMING LANGUAGES	Expert Python, Coconut	Proficient Go, JavaScript, C++, Haskell, Cython	Knowledgeable R, Java, MATLAB, Mathematica
SUMMARY	Four summers of professional software engineering experience at Google, Yelp, and Ripple. Author of Undebt and the Coconut programming language, which together have over 2,500 stars on GitHub. Presented on Coconut at PyCon 2017 and was interviewed on Coconut for TalkPython, Podcast.__init__, and Functional Geekery. Dean's list student majoring in mathematics and computer science at Harvey Mudd College.		
WORK EXPERIENCE	Computer Science Grader and Tutor Harvey Mudd College, Claremont, CA January 2016 – Present • Graded and tutored Computability and Logic, Data Structures and Program Development, Principles and Practices of Computer Science, and Computer Science for Insight.  Site Reliability Engineering Intern Google, Mountain View, CA May – August 2017 • Worked as a Launch Coordination Engineer (LCE) developing the software Google uses to perform production readiness reviews of new product launches. • Revamped the custom domain-specific language built by the LCE team to automate launch reviews.  Software Engineering Intern Yelp, San Francisco, CA June – August 2016 • Primary author of Undebt, an open-source automated code refactoring tool with over 1,400 stars on GitHub. • Wrote a blog post on Undebt (link below), which proved to be Yelp's most popular blog post to date and was featured on the front page of Hacker News. https://engineeringblog.yelp.com/2016/08/undebt-how-we-refactored-3-million-lines-of-code.html • Fixed errors in Yelp's configuration management that had previously taken down yelp.com. • Rewrote Yelp's system for running large data processing operations in Elastic Map Reduce.  Software Engineering Intern Ripple, San Francisco, CA June – August 2014; June – August 2015 • Worked on designing Interledger, a trustless system for cross-currency transactions between arbitrary agents. • Wrote a tool to do cryptographically secure generation of wallets for financial institutions. • Contributed significant improvements to the compilation/build process of the open-source RippleD project.		
PERSONAL PROJECTS	The Coconut Programming Language http://coconut-lang.org October 2014 – Present • Created the Coconut programming language, a novel functional programming language that compiles to any Python version. Supports pattern-matching, algebraic data types, TRE/TCO, and much more. • Coconut has been viewed over 50,000 times; has over 1,100 stars on GitHub; has been shown on the front page of Hacker News, r/Python, and r/Programming; and has been featured on InfoWorld.com and Pointer.io. • Presented on Coconut at PyCon 2017 (see https://us.pycon.org/2017/schedule/presentation/56). • Was interviewed on Coconut for TalkPython, Podcast.__init__, and Functional Geekery.  BBopt https://github.com/evhub/bbopt September 2017 – Present Developed a universal black box optimization framework for tuning hyperparameters. Written in Coconut.  cPyparsing https://github.com/evhub/cpyparsing July 2017		

Reimplemented PyParsing in Cython to achieve  $\approx 30\%$  better performance for Coconut and Undebt.

**Cards Against Humanity** July 2014 – May 2017

<https://github.com/evhub/cards-against-humanity>

Developed a program for playing Cards Against Humanity with custom cards over IRC. Written in Coconut.

**PyProver** March 2017

<https://github.com/evhub/pyprover>

Developed a library for resolution theorem proving in first-order predicate logic. Written in Coconut.

**DeT<sub>E</sub>XiPi** October 2015

Hackathon project to load DeT<sub>E</sub>Xify onto a Raspberry Pi, connect it to a computer, draw symbols on it, and have it type out the L<sup>A</sup>T<sub>E</sub>X commands for those symbols on the computer.

**Discrete Wavelet Transform Steganography** April – May 2015

<https://github.com/evhub/steganography>

Developed a program to perform discrete wavelet transform image steganography. Written in Coconut.

**Iterated Recursive Prisoner's Dilemma Simulator** April 2015

<https://github.com/evhub/prisoner>

Developed a library for performing and competing in iterated prisoner's dilemma competitions in which the competing programs can simulate the opposing programs. Written in Coconut.

**The Rabbit Programming Language** April – December 2014

<https://github.com/evhub/rabbit>

Created the Rabbit programming language, a purely functional, interpreted, dynamically-typed scripting language built on top of Python. Wrote a technical paper describing the language.

OPEN SOURCE CONTRIBUTIONS	<b>Pre-Commit</b> Fixed an issue that prevented installing pre-commit on Windows machines.	July 2017
	<b>Conda (of Anaconda)</b> Added support for advanced PEP 496 packaging features.	May 2017
	<b>Python Typeshed</b> Added type annotations for the <code>future_builtins</code> module.	October 2016
	<b>Jupyter (formerly IPython)</b> Added support for custom syntax highlighting.	July 2016
	<b>StaticConf</b> Improved resiliency in the event of missing data.	September 2016
	<b>PyParsing</b> Fixed numerous issues including Unicode support and PyPy compatibility.	November 2015

RELEVANT COURSES	<b>Machine Learning</b>	Fall 2017
	<b>Neural Networks</b>	Fall 2017
	<b>Abstract Algebra</b>	Fall 2017
	<b>Computability and Logic</b>	Spring 2017
	<b>Intermediate Probability</b>	Spring 2017
	<b>Mathematical Analysis</b>	Spring 2017
	<b>Independent Study in Computer Science</b>	Fall 2016
	• Worked directly with Professor Christopher Stone on Coconut development and research.	
	<b>Image Processing and Object Recognition</b>	Fall 2016
	<b>Advanced Differential Equations and Linear Algebra</b>	Summer 2016
	<b>Multivariable Calculus</b>	Summer 2016
	<b>Discrete Mathematics</b>	Spring 2016
	<b>Data Structures and Program Development</b>	Fall 2015

OTHER ACTIVITIES AND AWARDS	<b>Harvey Mudd Physics Department Rojansky Writing Award Winner</b>	May 2017
	<a href="http://evhub.github.io/papers/everett.pdf">http://evhub.github.io/papers/everett.pdf</a> Awarded for the technical writing in my paper <i>Multiple Worlds, One Universal Wave Function</i> (link above).	

Harvey Mudd Effective Altruism Club Leader (2017) — Effective Altruism Global Attendee (2017) — World Wide Web Consortium Interledger Payments Community Group Member (2016) — National Forensics League Honor Society Outstanding Distinction (2015) — National Policy Debate Tournament of Champions (2014, 2015) — East Bay Debate League Assistant Tournament Director (2013 – 2015) — College Prep Computer Science Club Leader (2013 – 2015) — National AP Scholar (2015) — National Latin Examination Summa Cum Laude (2014) — National Merit Commended Scholar (2014) — International Mathematics and Verbal Talent Search High Honors (2010)