

# ErichHayden Campbell

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## EDUCATION

### CORNELL UNIVERSITY

PH.D. IN COMPUTER SCIENCE  
Expected May 2022 | Ithaca, NY  
M.Sc. IN COMPUTER SCIENCE  
Expected May 2019 | Ithaca, NY  
Conc. in Programming Languages

### POMONA COLLEGE

B.A. IN COMPUTER SCIENCE  
B.A. IN MATHEMATICS  
Graduated May 2017 | Claremont, CA  
Conc. in Programming Languages

### INTERNATIONAL SCHOOL OF AMSTERDAM

INTERNATIONAL BACCALAUREATE  
Graduated May 2013 | Amsterdam, The Netherlands  
Conc. in Mathematics

## LINKS

Github:// [erichthewry](#)  
LinkedIn:// [ericcampbell](#)  
StackOverflow:// [erichthewry](#)

## COURSEWORK

### UNDERGRADUATE

Software Foundations (Coq)  
Programming Languages  
Senior Seminar (Security, Programming Languages, & Ethics)  
Computability & Logic  
Computational Statistics  
Number Theory & Cryptography

## SKILLS

### PROGRAMMING

Over 5000 lines:  
Haskell • Coq • Java-/CoffeeScript  
Python • Ruby on Rails •  $\text{\LaTeX}$  • bash  
Over 1000 lines:  
OCaml • R • MySQL • C++ • Java  
Familiar:  
Elm • C • HTML/CSS • iOS

### FOREIGN LANGUAGE

Professional French • Survival Dutch

### OTHER

Guitar • Voice • Espresso  
Ballroom Dance • Linguistics

## INDUSTRY EXPERIENCE

### ORIGINATE | SOFTWARE ENGINEERING INTERN

May 2015 – Aug 2015 | San Francisco, CA

- Developed Massive multi-user Ruby on Rails & Coffeescript applications.
- Won Nation-wide intern hackathon.

### GLADLY, INC | SOFTWARE ENGINEERING INTERN

May 2014 – Aug 2014 | Palo Alto, CA

- Worked on the Tab for a Cause team in JQuery and Python to redesign the front-end implementation of the website. Improved user downloads by 40%.
- Developed front-end widgets for the browser extension.

## SELECTED PUBLICATIONS

### KLEENE ALGEBRA MODULO THEORIES RYAN BECKETT, ERIC CAMPBELL, AND MICHAEL GREENBERG

POPL | July 2017

Generate Soundness proofs, Completeness proofs, and Decision procedures for KAs plus a Sound, Complete and Decidable, client theory.

### INFINITENESS AND LINEAR TEMPORAL LOGIC ERIC CAMPBELL,

ADVISED BY MICHAEL GREENBERG

Pomona College | May 2017

Proved Soundness, Completeness and Decidability for Finite-Trace Linear Temporal Logic. Developed a decision procedure for the logic. Proved the axiomatization equivalent to the temporal axioms in Temporal NetKAT, making a completeness proof possible for TNK.

### CONSTRUCTING INTEGER MATRICES WITH INTEGER

EIGENVALUES CHRISTOPHER TOWSE AND ERIC CAMPBELL

The Mathematical Scientist, UK | June 2016

Developed a construction algorithm for Integer Matrices with Integer Eigenvalues (IMIEs). Created a web app to create an IMIE from an arbitrary input matrix.

## PROJECTS

### DATABASES @ POMONA COLLEGE | RESEARCH ASSISTANT

Jan 2016 – Aug 2016 | Claremont, CA

Worked with Professor Melanie Wu on the development of QuickTSI, a fast query system for finding (partial) subgraph isomorphisms on temporal graphs.

### MATHSWIPE | TECHNICAL LEAD

Led a distributed team to build CoffeeScript puzzle game. Chose technologies, delegated tasks, and contributed majority of code.

### ROOMDRAW | TECHNICAL LEAD

Ruby on Rails & PostgreSQL application to automate the Pomona College room-draw process. Algorithmically assigns rooms based on preferences.

## TEACHING

Fall 2017	TA	Object Oriented Programming and Data Structures	Cornell Uni
Spring 2017	TA	Database Systems	Pomona Co
Fall 2016	TA	Programming Languages	Pomona Co
Spring 2016	Head TA	Intro to CS	Pomona Co
Fall 2015	TA	Intro to CS	Pomona Co