

69 Brown St #3116
Providence, RI 02912

Elijah Carrel
elijah_carrel@brown.edu
elijahcarrel.42pag.es

2 N Roby Rd
Madison, WI 53726

Education

BROWN UNIVERSITY

Computer Science Concentrator, Pre-Med Track.

May 2018
Providence, RI

Relevant coursework: Accelerated Introduction to Computer Science, Introduction to Computer Systems, Models of Computation, Introduction to Software Engineering (Spring 2016)

MADISON WEST HIGH SCHOOL

Peer Tutor. Varsity Singing Team.

June 2014
Madison, WI

Projects

CO-FOUNDER AND PROGRAMMER, INBOX COMICS

June 2014 – Present

- Programmed the entire back-end and front-end of inboxcomics.com in HTML/CSS, PHP, and MySQL.
- Developed and managed a secure subscription database and daily comic emails.
- Implemented efficient client-side search filtering with jQuery.

Leadership and Teaching

TEACHING ASSISTANT, BROWN UNIV. DIVISION OF APPLIED MATHEMATICS

September 2015 – Present

- Led recitation sections, tutorials in Matlab and LaTeX, and office hours as sole teaching assistant.

Research and Clinical Experience

INTERN, RHODE ISLAND HOSPITAL CHILDHOOD ASTHMA RESEARCH PROGRAM

October 2015 – Present

- Visited homes to conduct research sessions with food-allergic and asthmatic children and parents
- Assisted with translating research surveys into Spanish for non-English-speaking participants

INDEPENDENT RESEARCH PROJECT

January 2014 – June 2014

- Designed experiment on antibiotic sensitivity and inter-species competition in *E. coli*; cultivated bacterial populations *in vitro*; created a rudimentary fluorescent microscope from a standard light microscope; created dynamic computer simulation of protein inhibition.
- Wrote manuscript on fractal patterns produced in bacteria.

WISCONSIN ICECUBE PARTICLE ASTROPHYSICS CENTER INTERNSHIP

February 2013 – June 2013

- Used custom software to visualize and categorize neutrino interactions detected by South Pole observatory.

UNIVERSITY OF WISCONSIN-MADISON SCIENCE RESEARCH INTERNSHIP

June 2012 – August 2012

- Killpack, Carrel, Karasov. Impacts of Short-Term Food Restriction on Immune Development in Altricial House Sparrow Nestlings. *Physiol. Biochem. Zool.* 2015: 195-207.
- Designed and carried out muscle assay procedures; performed dissections.

SMART (STUDENTS MODELLING A RESEARCH TOPIC) TEAM

September 2011 – April 2012

- Carrel et al. *E. coli*'s Multidrug Transporter Complex: A SMART Team Exploration of Drug Resistance Mechanisms. *FASEB J.* 2012;26:1b269.

Honors

2nd Place, Council for Wisconsin Writers' Essay Award for Young Writers
Peer-selected as Homeroom Leader for Freshman Orientation

May 2013
August 2013

Employment

Group Counselor, Camp Shalom, Verona, WI

June – August, 2014 – 2015

Cabin Counselor, Camp Interlaken JCC, Eagle River, WI

June 2013 – August 2013

Hebrew and Music Teacher, Temple Beth El, Madison, WI

September 2010 – May 2014

Skills

Programming: Proficient in Java, C, PHP, HTML, Racket, and Matlab. Proficient in object-oriented and functional paradigms.
Language: Proficient in Spanish.