# **Zachary Espiritu**

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## Education

**Brown University** · May 2021 **Sc.B.** Computer Science · GPA: 4.0

Regis High School · June 2017

# Skills

# Languages

Ruby · Python · Swift · Objective-C · Java · C · Assembly · HTML / CSS · JavaScript · PHP · Racket · Pyret · Go · MATLAB · Bash

# **Technologies**

Rails · React · Sass · jQuery · Heroku · PostgreSQL · Alloy Analyzer · TLA+

# Prototyping

Sketch · Figma · InDesign · Photoshop · Adobe XD

## Coursework

Accelerated Intro to Computer Science (Algorithms, Data Structures, Functional Programming) Computer Systems Security

Discrete Structures and Probability Introduction to Computer Systems

Linear Algebra

Logic for Systems (Formal Methods and Verification in Programming)

User Interfaces and User Experience

## Activities

Musical Forum · Board Member
Theater group at Brown producing 2–3
shows per semester; five years of
lighting design over 15 productions.

Brown Daily Herald · Designer

# Experience

#### **Brown Computer Science Department**

Fall 2017 – Present

Head Teaching Assistant for CS19 (Fall 2018)

Teaching Assistant for CS5 (Fall 2017), CS4 (Spring 2018)

Answered student questions online and in-person during weekly office hours. Facilitated weekly lab sections. Graded student submissions. Developed new course assignments and internal scripts for TA staff use.

#### Negotiatus

Summer 2017

## Software Engineering Intern

Co-developed automated sales lead information validation tool. Streamlined operations team workflows with Slack integrations and automated price comparison tools integrated with product vendor APIs. Optimized PostgreSQL queries for up to ~500x faster full-text searches.

### Negotiatus

Summer 2016

## Software Engineering Intern

Created client-facing system for customers to automatically schedule recurring orders. Set up continuous integration pipeline and co-wrote test suite from scratch for several thousand lines of code with over 70% coverage. Built web scrapers to automate previously manual product price point collection using NLP. Led development of company Ruby style guide.

# **Projects**

(many more at zacharyespiritu.com)

#### Math Battle

10Under20 at CEWeek 2016 Recipient for Educational Technology

Real-time, online, multiplayer math puzzle experience on iOS.

## collab/space

# hack@brown 2018

An online IDE built using Meteor and React for real-time peer collaboration via a live-updating editor, in-browser code compilation, and video chat.

#### Tile, Tap, Push!

7000+ App Store Downloads & "Audience Choice" at Make School

Two-player iOS game about tapping tiles in split-screen multiplayer.

#### **Awards**

(many more at zacharyespiritu.com)

2nd Place at Microsoft Coding Challenge @ Brown

Sep 2017

Apple WWDC Scholarship Winner

June 2017