

# Lachlan McCarty

6389 Frist Center ♦ Princeton, NJ 08544

(609) · 558 · 6389 ♦ lachlan@lachm.com ♦ github.com/lachm

## EDUCATION

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### Princeton University

*Bachelor's of Science in Engineering, Computer Science*  
GPA: 3.81, Departmental GPA: 3.93

May 2022  
Princeton, NJ

- Relevant Coursework: Information Security, Operating Systems, Algorithms and Data Structures, Reasoning About Computation, Probability, Quantitative Social Science, Linear Algebra, Vector Calculus, Economics & Computing, Machine Translation, Computer Architecture (dual-enrollment), Programming Systems (dual-enrollment)
- Activities: ACM Workshops Chair, HackPrinceton (Development Subteam Head), USG Committee on Student Housing

### Princeton High School

GPA: 3.93, Weighted GPA: 4.60

June 2018  
Princeton, NJ

## EXPERIENCE

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### Airbnb (Cancelled due to COVID-19)

*Software Engineer Intern*

Summer 2020  
San Francisco, CA

### Airbnb

*Software Engineer Intern - Payments*

June 2019 - August 2019  
San Francisco, CA

- Worked in Java on the incentive (e.g. coupon, credit, cash) issuance service, designed as the service-oriented architecture replacement for a fragmented incentive ecosystem
- Developed budget management and other safety/security features into the incentive issuance service to protect against costly mistakes or programmer error
- Integrated budget management into the incentive program configuration web app using React, TypeScript, Redux
- Migrated database schemas and crafted budget alert email templates using Ruby
- Tracked usage, performance, and error rates with Datadog

### Princeton University Computer Science Department

*COS 217 Undergraduate Grader*

September 2018 - January 2019  
Princeton, NJ

### Rutgers WINLAB (Wireless Information Network Laboratory)

*Summer Intern*

June 2017 - August 2017  
North Brunswick, NJ

- Augmented the safety and functionality of a bicycle with an app and wireless connected sensors, lights, and lock
- Controlled system over Bluetooth LE from Android app by implementing a GATT server on a Raspberry Pi

## PROJECTS

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### Strobr Scope

*iOS App, Swift, Camera API*

September 2017  
PennApps XVI

- iOS app used to estimate an object's rate of rotation by varying the camera's frame rate until the object appears motionless
- Operates on the same principle as light flashing stroboscopes used in industrial and research settings
- Available on the App Store at [lachm.com/strobr](http://lachm.com/strobr) or on GitHub at [github.com/lachm/strobr](https://github.com/lachm/strobr)
- Ranked among top 30 teams out of 150 teams at PennApps XVI

### SciBowlBuzzer.com

*Web App, Python, Flask, WebSockets*

May 2017  
StuyHacks 2017

- Designed to replace analog Science Bowl buzzer systems with a mobile web app
- The moderator manages buzzing and scoring from a dashboard while players buzz in using SciBowlBuzzer on their phones
- Hosted with Heroku at [SciBowlBuzzer.com](http://SciBowlBuzzer.com) and available on GitHub at [github.com/lachm/SciBowlBuzzer](https://github.com/lachm/SciBowlBuzzer)

## TECHNICAL STRENGTHS

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### Skills

Back End, Full Stack, Web Scraping, Statistics

### Programming Languages

Python, Java, C, JavaScript, R, Swift, Go, MIPS, x86

### Tools

Git, GitHub, Slack, bash, Kubernetes

### Markup & Style

HTML, CSS, L<sup>A</sup>T<sub>E</sub>X, Jekyll

### Technologies

Flask, Django, React, Redux, Thrift, iOS SDK, Chrome Extensions