# Liam Schumm

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EDUCATION

Walter Payton College Prep, Chicago, IL

Sep 2015 - Jun 2019 (Expected)

SELECTED SOFTWARE PROJECTS

# Lime: An experimental functional programming language

Jul 2018 - Present

https://github.com/lschumm/lime

Designed and developed Lime, a small, strongly typed, purely functional programming language. It indends to take a minimal approach to language design—combining the power of Lisp language constructs with low-level computation models. I developed Lime with the guidance of the PLT team at Northwestern University.

# Osmi: A mobile app to administer olfaction tests

Jul 2017 - Present

https://github.com/osmi-app

Designed and developed an interactive smartphone application for a group of scientists and physicians at the University of Chicago which uses adaptive testing methods to accurately assess human olfactory ability for use in clinical and research settings.

## Link: A social media application

2017 - 2018

Co-founder and and software developer at Link Media LLC. Link is a social media application which uses technology to connect people in real life. Released on Apple's App Store® in 2017. Semifinalist at 2017 Diamond Challenge for High School entrepreneurs.

Epius 2018 - Present

I helped create and deploy Epius, an app for automatic note-taking. Epius wraps an ensemble of NLP algorithms to convert voice data into a bullet-point notes format in a convenient, simple mobile app.

# Ergonomica: A cross-platform modern shell

Nov 2016 - Present

https://github.com/ergonomica

Designer and lead developer. Ergonomica is a cross-platform shell language implemented in Python that combines a fully-functional S-expression based language with traditional shell features such as flags and piping to provide the functionality of Lisp with the convenience of the UNIX shell.

#### Presentations

# Ergonomica

May 21, 2017

Poster presentation at PyCon 2017 in Portland, OR https://us.pycon.org/2017/schedule/presentation/712/

#### Ergonomica with Liam Schumm

August 19, 2017

Featured guest on Episode 123 of Podcast.\_init\_\_

https://www.podcastinit.com/ergonomica-with-liam-schumm-episode-123/

Meet CR<sup>2</sup>!

July 28, 2014

Presentation given at TEDx Youth@HotMetalBridge event in Pittsburgh, PA. As part of the Coral Reef Regeneration (CR<sup>2</sup>) project, collected and analyzed data on changes in coral and fish health over time in the Dominican Republic.

http://ellisspeaks.wixsite.com/tedxyouth/cr2

TEACHING AND LEADERSHIP

#### Chicagoland Model United Nations (MUN) Club

Nov 2014 - Nov 17 2018

Vice Chair of United Nations Commission on Science and Technology for Development (CSTD) at the Northern Illinois Model United Nations (NIMUN) Conference 2015; Vice Chair of UN Security Council for NIMUN 2016; Chair for CSTD and Co-Secretary General for NIMUN 2017. NIMUN is organized and run by high school students, and is the largest MUN conference for middle schoolers in the midwest.

#### Chicode and event0

Spring 2018 - Present

Co-founded Chicode, a charity dedicated to providing exposure and training in computer science to Chicago Public Schools students. Chicode seeks to provide resources beyond those available in the schools to increase interest and participation in computer science, especially among students from underprivileged communities. https://chicode.net

As one of Chicode's first events, helped organize event0—the biggest hackathon in Chicago and the largest high school hackathon in the Midwest. Worked with Chicode and Chicago Public Schools' CS4All program to bring students from across the city of Chicago together for 24 chaotic hours of coding. https://event0.org

### CodeDay Chicago

May 2016 - Present

Lead organizer (after participating in 3 events). Taught coding and mentored students from across the Chicagoland area, provided guidance on projects, and facilitated fun events to engage students from middle school to college in computer science.

https://www.codeday.org/chicago

Robotics Team

Fall 2017 - Present

Co-founded and now lead the Walter Payton Robotics Team; competed in the FTC FIRST robotics competition at the regional level.

## **Programming Club**

April 2017 - Present

Started a programming club at Walter Payton which meets once a week to provide students time, space, and resources to work on independent projects, help with computer science homework, and an introduction to computer programming.

### Waters Elementary School

Spring 2018

Hired to teach middle school students basic Arduino programming, breadboarding, and robot design as part of an after-school program.

# Awards & Achievements

#### AP Scholar with Distinction

July 4, 2018

Achieved average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more exams.

#### AP Capstone Diploma

July 4, 2018

Successfully completed AP Seminar, AP Research, and a minimum of four additional AP courses and exams with scores of three or higher.

#### Chicago QED Math Conference

2014 - 2017

2x Highly Distinguished Mathematics Research Award for "Snell's Law and the Refraction of Light" (2014) and "Battlecode" (2016); Distinguished Mathematics Research Award for "Lambda: An Optimized Language" (2017).

### Illinois Institute of Technology (IIT) 2018 Book Award

May 23, 2018

Presented during the Fifth Annual Walter Payton Junior Book Awards

# Chicago Public Schools Science Fair

Mar 2017

Won 2nd place (Silver Award) in Computer Science Division and awarded Outstanding Project (in the category of engineering) by the College of Engineering at the University of Illinois at Chicago.

# MIT Battlecode competition

Jan 2017

Won 3rd place in the High School Division of MIT's 2017 Battlecode tournament.

#### Midwest MATE ROV Regional Competition

Apr 2016

2019

Won 1st place at Midwest MATE ROV Regional Competition—SCOUT level (hosted by the Shedd Aquarium at Northeastern University) for sales presentation and technology report.

CodeDay 2016 - 2018

3x CodeDay Special Award for technical achievement

HackRidge

Best Individual Project