



# Clive A. Chan

<http://clive.io> | [cc@clive.io](mailto:cc@clive.io)

I'm a self-taught full-stack developer with more than 8 years of experience in programming, especially web applications, and I've run three academic competitions and worked in two fledgling startups. I'm also independently learning and researching machine learning, and have researched network meta-analysis of cancer treatments.

**Citizenship** USA/Canada Dual

**Born** October 1998

**Languages** English, native fluency; Mandarin, basic fluency

## Academics

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University of Waterloo Software Engineering, Co-op: 2016-2021

Lexington High School (Lexington, MA): 2012-2016

**GPA** 3.77

**SAT** 2360 (superscored)

**SAT II** 800 on Math I & II, Chemistry, and Physics; 780 on Biology

**AP** 5 on Calculus AB & BC, Biology, Chemistry, Physics C Mechanics & E&M, Computer Science, Statistics, Macro/Micro Economics; National AP Scholar

**National Merit Scholarship** Finalist

## Supplementary Courses

Multivariable Calculus & Linear Algebra at Harvard Extension School, gr. 10

Coursera Machine Learning, gr. 10-12

## Academic Competitions

**USA Computing Olympiad** Platinum League

**USA Physics Olympiad** Silver Medalist

**USA Chemistry Olympiad** 2x School Finalist

**USA Math Olympiad** AMC 12 School Winner, 5x AIME qualifier

## Programming Experience

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**Notable projects:** [clive.io](http://clive.io), [lexscibowl.org](http://lexscibowl.org), [live.lexhack.org](http://live.lexhack.org), [lhsmath.org](http://lhsmath.org), [calcbee.org](http://calcbee.org), [vocative.github.io](http://vocative.github.io)

**Lines of code:** 100,000+ public on GitHub <[github.com/cchan](https://github.com/cchan)>

## Work & Research Experience

**Private C++ instructor** summer 2013

**KTByte** Teaching Assistant, summer 2014

**MIT PRIMES** researcher, 2016-present

**VitaeDev** co-founder, 2016-present

**SkillFlow** developer, 2016-present

Taught basics of C++ programming to elementary school students.

Helped students learn Processing & build their own interactive projects.

Performing network meta-analysis of cancer treatments to compare studies with different parameters and results fairly.

Lead programmer in student-run startup writing modern websites for Lexington-area businesses, with free services to nonprofit community organizations. <[vitae.dev](http://vitae.dev)>

Startup based in Palo Alto creating a platform to facilitate live collaboration of software developers in need of experienced help, using the Slack chat platform.

## Web Development Languages/Technologies

**Expert:** HTML5, CSS3 (& Sass CSS), JavaScript, JQuery, PHP, MySQL, Firebase, AngularJS

**Proficient:** Linux Server Admin, NoSQL, Socket.IO, NodeJS, CoffeeScript, Google Analytics, Apache, Twisted, Express JS, Amazon EC2, Gulp, SSL, CloudFlare, RedHat OpenShift, DNS, ReactJS

## Other Computer Languages/Technologies

**Expert:** C/C++, Java, Git & GitHub, DOS Batch, Linux Bash, SSH, Nmap

**Proficient:** Python, Numpy, TensorFlow, Caffe, Octave/MATLAB, LaTeX, Raspberry Pi, Arduino, Visual Studio, Android Studio, Eclipse, GIMP, Maven, Travis CI, R, OpenSSH, GPG

## Leadership

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### Science Bowl

*LexSciBowl*, Founder & Coordinator,  
gr. 11-12

Founded and twice coordinated LexSciBowl, the first-ever high school student-run middle school science contest, based on Science Bowl buzzer competition format. With extensive outreach, attracted 60 competitors to its first annual competition May 2015, and over 80 in April 2016. <[lexscibowl.org](http://lexscibowl.org)>

Science Bowl Team Co-Captain, gr. 12

Lead a top National Science Bowl team, the decade-long reigning champions in the New England region. Write tryouts, select team members, run all practices, and compete (specialties physics and math) in regional and national events. Competed in National Science Bowl, earning 4th place nationally in 2016.

### Math Team

*Lexington Math Tournament*,  
Executive Coordinator, gr. 11-12

Coordinated overall logistics, outreach, and tech for three annual Lexington Math Tournaments, Lexington High School's student-run middle school math competition, with about 160 competitors from across New England 2014-2016. <[lhsmath.org/LMT](http://lhsmath.org/LMT)>

Math Team Co-Captain, gr. 11-12

Deliver lectures and manage tryouts and logistics for competitions throughout the year; successfully maintained team's longtime New England math league dominance, with the most USAJMO qualifiers of any school nationally in 2016. <[lhsmath.org](http://lhsmath.org)>

Webmaster, gr. 10-12

Maintain and update 70,000+ lines of PHP, through which the Math Team is administrated. <[lhsmath.org](http://lhsmath.org)>

### FIRST Robotics

*LexHack*, Co-Founder & Coordinator, gr. 11-12  
Co-founded and twice coordinated LexHack, a 12-hour student-run hackathon. Managed over \$3000 of sponsorship covering the entire event, and attracted over 70 hackers in September 2014 and almost 100 in September 2015. <[lexhack.org](http://lexhack.org)>

*OpenSource High School MakerSpace*,  
Co-Director, gr. 11-12

Co-direct \$20000 of grant money awarded to LHS Robotics to build a student-run MakerSpace for LHS students and teachers to use and to create curricula and train teachers for future elementary school engineering classes. Program now encompasses all Lexington public schools, events at regional venues, LexHack (above), and beyond, and is endorsed by the superintendent.

Team 4029 *Two Bits and a Byte*, Research & Development Lead, gr. 11-12

Lead research for novel software robot control methods, with special interest in machine learning and computer vision. LHS Robotics builds and programs a robot for the FIRST Tech Challenge, consistently ranking among the top teams worldwide.

### LHS Student-Faculty Senate

Voting Student Senator, gr. 10

Honorary Student Senator, gr. 11-12

Honorary senator of the LHS Student-Faculty Senate, a unique system of high school government comprising both students and faculty.

### VitaeDev

Co-founder & Lead Programmer, gr. 12

Lead a group of students writing modern websites for Greater Boston Area businesses and providing free services to nonprofit community organizations. <[vitaedev.com](http://vitaedev.com)>

## Other Employment

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**Lexplorations** Counselor, summer grade 9 Helped teach engineering class for elementary school students.

**Kumon** Teaching Assistant, grades 10-11 Taught children in math & reading; informal TA supervisor.

## Interests & Activities

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Singing: Baritone & Basso Profondo, Honors Chorus grades 10-12; vocal soloist, Les Miserables, LHS Pops grade 9

Worship leader, church high school youth group

Played piano for 10 years

Recreational skating

Recreational photography