

Clive A. Chan

<http://clive.io> | cc@clive.io

Academics

Lexington High School (Lexington, MA): June 2016 graduation (expected)

GPA 3.77 (grades 9-11 + grade 12 semester 1)
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 Mech & E&M, Computer Science, and Statistics;
4 on United States History
National AP Scholar

National Merit Scholarship Finalist

Supplementary Courses

Multivariable Calculus & Linear Algebra (Math E21a & b) at **Harvard Extension School**, grade 10
Machine Learning at [coursera.org/learn/machine-learning/](https://www.coursera.org/learn/machine-learning/), grades 10-12
USA Computing Olympiad Preparation Course at KByte, summer grade 10
DEEP Summer Engineering Program at University of Toronto, summer grade 11

Individual Competitions

USA Computing Olympiad Platinum League competitor
USA Physics Olympiad Semifinal Honorable Mention gr. 11, Semifinalist gr. 11-12, F=MA participant gr. 9-12
USA Math Olympiad Qualified for AIME gr. 8-11; Qualified for Junior Math Olympiad grade 8
USA Chemistry Olympiad Top 3 in school, Avery Ashdown Exam Qualifier
Google Science Fair 2016 (planned) Cranial Computed Tomography Triage with Neural Networks
LHS Science Fair 2015 Predator-Prey Coevolution with Neural Networks
MIT BattleCode 2016 Participant; defeated referenceplayer (<https://github.com/cchan/battlecode-369>)

Programming Experience

Self-taught full-stack developer, 7+ years of experience in programming, especially web applications. Independently learning and researching machine learning.

Notable projects: clive.io, lexscibowl.org, live.lexhack.org, lhsmath.org, calcbee.org, vocative.github.io

Lines of code: 92,000+ public on GitHub (github.com/cchan) in past 2-3 years, mostly in web-based applications.

Web Development Languages/Technologies

Expert: HTML5, CSS3 (& Sass CSS), JavaScript, JQuery, PHP, MySQL, Firebase, AngularJS, AngularFire
Proficient: Linux Server Admin, AWS, NoSQL, Socket.IO, NodeJS, CoffeeScript, Google Analytics, Apache, Twisted

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

Employment

Kumon Teaching Assistant, grades 10-11
KByte Teaching Assistant, summer grade 10
Lexplorations Counselor, summer grade 9
Private C++ instructor summer grade 9

Taught children in math & reading; advanced to informal TA supervisor.
Helped students learn Processing & build their own interactive projects.
Helped teach engineering class for elementary school students.
Taught basics of C++ programming to elementary school students.

Leadership

Science Bowl

LexSciBowl, Founder & Coordinator,
gr. 11-12

Founded and 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 competition May 2015. Will continue into LexSciBowl 2016. <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. Competing in national competition in May.

Math Team

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

Coordinate overall logistics, as well as outreach and tech, for Lexington Math Tournament, a Math Team -run middle school math competition attracting 160 competitors from across New England in March 2015. Will continue into LMT 2016. <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-wide math league dominance. <lhsmath.org>

Webmaster, gr. 10-12

Maintain over 70,000 lines of PHP code, through which the Math Team is administrated. <lhsmath.org>

Interests & Activities

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

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>

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

Co-direct a \$5000 grant awarded to LHS Robotics to build a student-run community MakerSpace at LHS, and create curricula and train teachers for future elementary school engineering classes. Centerpiece of the largest engineering outreach program of any FIRST Robotics team, encompassing all Lexington public schools, programs at regional venues, LexHack, and beyond.

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 Senate

Voting Student Senator, gr. 10

Honorary Student Senator, gr. 11

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