



CLIVE A. CHAN

University of Waterloo Software Engineering

🏠 clive.io
✉ cc@clive.io
🔗 cchan
📄 cchan3141
☎ 781-266-6088

Founder of a hackathon, a startup, and multiple tech outreach events.
Silicon Valley startup programmer.
Hyperloop software lead.

TECHNICAL SKILLS

Native speaker: C++, NodeJS (ES6), HTML5, CSS3, JavaScript, Git

Conversationally fluent: C, Java, Python, PHP, Linux, Matlab, SQL, jQuery, Bash

Curious tourist: AWS, NoSQL, Docker, Travis CI, React, R, TensorFlow, Keras, Go

AWARDS

US Computing Olympiad *Platinum Division*

US Math Olympiad *5x AIME qualifier, USAJMO qualifier*

US Physics Olympiad *Silver Medalist*

LEADERSHIP

Waterloo Tech Talks 🌀 *founder*

- Ongoing student-delivered tech talk series.
- Hosted a co-op information panel with 50+ students in attendance.

LexHack 🌀 *co-founder & co-director 2x*

- First high school-run hackathon in MA.
- Attracts 80+ participants and \$3k+ in sponsorships every year.

OpenSource MakerSpace 🌀 *cofounder*

- Won \$5000 grant, cofounding a school-wide engineering lab providing free tools, materials, mentors, and teacher training.

LexSciBowl 🌀 *founder & co-director 2x*

Lexington Math Tournament 🌀 *director 3x*

EDUCATION

University of Waterloo, Bachelor of Software Engineering, Co-op
Fall 2016 Average: **95.82% (4.00 GPA)**

MOOC coursework, including Stanford's *Machine Learning*, Princeton's *Algorithms*

Harvard Extension School Multivariable Calculus & Linear Algebra (2013-2014)

EXPERIENCE

Bloomberg LP software engineering intern Starting May 2017

SkillFlow 🌀 *backend software engineer* Jul 2016 – present

- Developed highly scalable NodeJS stack, with 1000+ peak users.
- Implemented Enterprise edition of the product and refactored much of the core codebase, creating and publishing 3 open-source modules.
- Gained familiarity with modular software design, SQL and NoSQL databases, documentation and unit testing.

VitaeDev 🌀 *co-founder* Apr 2016 – present

- Led a team of students coding websites for Lexington organizations.
- Mentored the team in LAMP backend stack and web design principles.

Freelance Work 🌀 *web developer* Jun 2014 – present

- Wrote many complex webapps and static websites, including LexSciBowl, CalcBee, Science Bowl, LexHack, and VitaeDev.

STUDENT TEAMS

Waterloo Hyperloop Team 🌀 *Software and Systems Lead*

- Canada's only qualifying SpaceX Hyperloop Competition team, with 100+ members; first in the world to achieve pneumatic levitation.
- Overseeing a team of ~15 programmers, from first-years to graduates.
- Designing optical position sensor system functional at Mach 1, and writing a WebSocket-UDP-UART communication pipeline in Go and C.

Lexington FTC Robotics Team 🌀 *Research and Development*

- Four-time World Championship qualifier; led software R&D projects, including PID and sonar localization for autonomous control.

HACKATHONS

Team DuckDuckGoose 🌀 *2nd Place @ Bloomberg Code B 2017*

- Python AI for a large multiplayer Asteroids-like physics game.

Signbot 🌀 *1st Place @ McHacks 2017*

- Two-handed robot translating between English speech and ASL.

Sandwich-o-matic 🌀 *Best Hardware Hack @ ECHacks 2016*

- Voice-controlled sandwich maker, featured on Hackaday, Arduino, MLH.

PROJECTS

Amazon EC2 Server Suite 🌀

- Automatic server maintenance tools using NodeJS and Bash.
- Includes a reverse proxy with CloudFlare HTTPS, seven production web servers, and a Facebook Messenger bot to notify of server events.

C++ Neural Networks 🌀

- Neural network and matrix math library written from scratch in C++.
- Implemented backpropagation, and ran a genetic algorithm simulation demonstrating predator-prey coevolution.

Lexington High School Math Team Website 🌀

- Refactored a 30k+ line PHP codebase over several years, abstracting common libraries, automating the dev cycle, and securing SQL queries.