

# Cristian Bicheru

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GitHub: [github.com/cristian-bicheru](https://github.com/cristian-bicheru)

## EDUCATION

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<b>Sir John A Macdonald Secondary School</b> High School	Waterloo, Ontario 2017–Current
<b>Institute for Quantum Computing</b> QCSYS	Online Summer 2020
<b>Olympiads School</b> Physics 11, CMO Jr. Math	Toronto, Ontario 2017–2018
<b>Art of Problem Solving</b> PhysicsWOOT, AP Calculus BC, Intermediate Counting and Probability, Intermediate Algebra	Online 2017–2018
<b>AwesomeMath Summer Program</b> Number Theory 1, Combo 1, Algebra 2.5, Geometry 2, Number Theory 2, Combo 2	Ithaca, New York Summer 2017, 2018, 2019
<b>AwesomeMath Academy</b> Physics Level 1, Physics Level 2	Online 2017–2018
<b>Grand River Chinese School</b> Olympic Math	Waterloo, Ontario 2017–2019

## EXPERIENCE

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<b>JAMHacks</b> Lead Organizer Organizer	Waterloo, Ontario 2019–Current 2018–2019
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- JAMHacks is a hackathon—a 24-hour-long “innovation marathon”. Roughly 200 students meet at SJAM to work in teams of up to 4 to create an app, game, website, robot, gadget, or whatever they are passionate about and present their creations to judges. We provide the tools, judges, mentors, and of course food, for the students to develop their ideas. I lead a team of 12 organizers and prepare weekly meetings to ensure everyone is up to date with each other. I oversee all planning and preparations for the event, and help gather sponsors and grants as well.

<b>Elections Canada</b> Information Officer	Waterloo, Ontario Fall 2019
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- Verified voter IDs and ensured voter eligibility. Directed hundreds of people to their polling stations.

## SKILLS

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- **Python:** NumPy, SciPy, SymPy, PyTorch, TensorFlow, Flask
- **C/C++:** SIMD, Boost
- **Node.js:** Express
- **Administration:** Unix, Google Cloud Platform, Firebase
- **Misc:** LaTeX, Git

## PROJECTS

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See full list of projects on <https://github.com/cristian-bicharu?tab=repositories>

- Fast TA (C, 2020)
  - Python technical analysis library written in C.
- Arith (C++, 2020)
  - A simple Huffman/Arithmetic Codec library.
- Tippe Top Simulation (Processing, 2019)
  - Modelling Electrostatics (Processing, 2019)
- A simulation implementing the RK4 and RKDP methods.
  - A simulation demonstrating Biot-Savart law.

## SCHOLARSHIPS AND AWARDS

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- MasseyHacks VI - Best COVID-19 Hack 2020
- COMC - Repechage Qualification 2018
- Newton Contest - Perfect Score 2018
- Pascal Contest - Perfect Score 2018
- Gauss Contest - Perfect Score 2018

## EXTRACURRICULAR ACTIVITIES

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- Computer Science Club President 2020–Current
- Computer Science Club Executive 2018–2020  
*Computer Science Club is dedicated to enhancing the CS knowledge of the general student body - from total beginners to leet coders, we provide the mentorship and lessons to progress our students' CS skill. Our club is well known for giving a solid preparation to the CS courses our school teaches. I organize and lead weekly meetings with the executives, and meticulously ensure we are adequately planned and prepared for the school year. During the summer, my team and I planned out guest speakers and lessons for the entire school year, and had completed lessons for the entire first semester. Additionally, under my leadership, the team and I are in the process of designing and creating a comprehensive, scalable attendance tracking platform which integrates with Discord for easy attendance and data collection with online learning, as well as a special QR code scanning technology for efficiently tracking attendance in person (while maintaining social distancing procedures).*
- Science Club Executive 2020–Current  
*At Science Club, we provide engaging lectures on topics from Biology, Chemistry, and Physics. We also provide one-on-one mentorship to students interested in participating in the Waterloo Wellington Science and Engineering Fair. I teach Chemistry and Physics, as well as provide mentorship for the fair.*
- Mathletes Executive 2018–Current  
*Mathletes is SJAM's largest club (with CS Club being a close second). We provide an inclusive, welcoming space for students to learn and practice challenging mathematics with their colleagues. While we teach a topic of the week (TOW) every other week, the most intriguing part of Mathletes is during the free discussion parts of the meetings, where students discuss all sorts of interesting and fascinating mathematics with the rest of the club. We always have students chatting by the whiteboard, exploring interesting mathematical concepts under the mentorship of the execs. We also run some fun events now and then, like the SJAM Math Olympiad (SJAMMO), a math relay, an integration bee, etc. I help out with almost everything, minus some of the logistics.*