

# BENJAMIN CHEN

I am a master's student in Computer Science at University of Waterloo, specializing in computer algebra and symbolic computation under the supervision of Professor George Labahn and Professor Eugene Zima.

@ b246chen@uwaterloo.ca  
in benjamin-chen-983645164

647-575-9946  
NeraSnow

Waterloo, ON

https://cs.uwaterloo.ca/~b246chen/

## EDUCATION

Master of Mathematics (MMath)  
Computer Science

University of Waterloo

May 2023 - Waterloo, ON

Bachelor of Mathematics (BMath)

Pure Mathematics Honours Co-op  
Computing Minor / East Asian Studies Minor  
Diploma in Japanese Language II  
Global Experience Certificate

University of Waterloo

Sept 2017 - April 2023 Waterloo, ON

- Excellent Standing
- Graduated with "Distinction"

## RESEARCH EXPERIENCE

Undergraduate Research Assistant

University of Waterloo

May 2022 - April 2023 Waterloo, ON

I was working on two projects under the supervision of two different professors.

- MathBrush project under the supervision of Professor George Labahn
- Accelerating modular arithmetic with special choice of moduli under the supervision of Professor Eugene Zima

## AWARDS

Mathematics Undergraduate Research Award (MURA)

University of Waterloo - Faculty of Mathematics

Sep 2022

Undergraduate Research Fellowship (URF)

University of Waterloo - Cheriton School of Computer Science

Sep 2022

University of Waterloo President's Scholarship

University of Waterloo

Sep 2017

## WORK EXPERIENCE

CS247 Instructional Support Assistant

University of Waterloo

May 2022 - Aug. 2022 Waterloo, ON

CS137 Instructional Support Assistant

University of Waterloo

Sept. 2021 - Dec. 2021 Waterloo, ON

CS246 Instructional Support Assistant

University of Waterloo

May 2020 - Aug. 2020 Waterloo, ON

CS137 Instructional Support Assistant

University of Waterloo

Sept. 2019 - Dec. 2019 Waterloo, ON

- Maintaining course web page and newsgroup/Piazza
- Giving tutorials to students on a weekly basis
- Writing auto testing scripts to evaluate students' submission (Marmoset)
- Attending and participating in weekly feedback and planning meetings which normally include the instructors

## VOLUNTEER EXPERIENCE

Youth Steering Committee - eLearning Critic

SAVIS of Halton

Mar. 2016 - Jun. 2016 Oakville, ON

- Reviewed and provide constructive feedback on SAVIS program eLearning presentations composed for youth programs to improve critical thinking skills
- Developed cooperation skills by working with SAVIS staff to compile research for presentations

## SKILLS

LaTeX, C/C++, Python



Microsoft Office, PowerShell, Bash



Mathematica, MATLAB, Maple, Linux, React



## RELEVANT COURSES

---

### Pure Mathematics

- PMATH 464: Intro to Algebraic Geometry
  - PMATH 440: Analytic Number Theory
  - PMATH 446: Intro to Commutative Algebra
- 

### Computing Option

- CS 370: Numerical Computation
  - CS 475: Computational Linear Algebra
  - CS 487: Intro to Symbolic Computation  
Course Project: Primality Testing
- 

### East Asian Studies

- JAPAN 301R: Third-Year Japanese 1
  - JAPAN 302R: Third-Year Japanese 2
  - CHINA 401R: Intro Classical Chinese 1
- 

A more detailed chart illustrating the courses I took can be accessed here: [Course Dependency Chart](#)

## QUALIFICATIONS

---

### Programming Experience

- A personal website
- A simple calculator project using React
- Participated in a C++ group project (Chess) for CS 246

### Proficient $\LaTeX$ User

- Using  $\LaTeX$  in various settings: Notes, Assignment, CV, Charts, etc  
Sample document:
  - Notes: PMATH 450 Notes

## REFEREES

---

### Prof. George Labahn

@ University of Waterloo

✉ glabahn@uwaterloo.ca

- Director of Symbolic Computation Group
  - Professor of David R. Cheriton School of Computer Science at University of Waterloo
- 

### Prof. Eugene Zima

@ University of Waterloo & Wilfrid Laurier University

✉ ezima@uwaterloo.ca

- Associate Professor at Wilfrid Laurier University
- Adjunct Associate Professor of David R. Cheriton School of Computer Science at University of Waterloo

### Prof. Stephen New

@ University of Waterloo

✉ snew@uwaterloo.ca

- Associate Chair of Undergraduate Studies of Faculty of Mathematics at University of Waterloo

## LANGUAGES

---

- Chinese (Mandarin): Native
- English: Fluent
- Japanese: Intermediate