

Charlie Gagnon

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EDUCATION

Brown University

Sc.B. – Computer Science

September 2018 - May 2022

Providence, RI

Natick High School

September 2014 - June 2018

Natick, MA

WORK EXPERIENCE

Software Engineering Intern

MathWorks Engineering Development Group

May 2021 - September 2021

- While working in the **Cloud Platform** team, developed a log anomaly detection and remediation system for Kubernetes apps, coordinating Fluent Bit, Elasticsearch, and AWS Lambda to discard unwanted logs
- While working in the **Parallel Code Generation** team, contributed to internal type system conversion for MATLAB/Simulink Coder, which generates human-readable C and C++ code from MATLAB source and graphical model specifications

Virtual Student Intern

National Park Service - South Florida / Caribbean Network

September 2020 - Present

- Designing computer vision system to classify and count colonial nesting birds in Biscayne National Park
- Team of 3 selected as **Team Project of the Year, 2021**, from a pool of more than 3,000 interns

Undergraduate Teaching Assistant

Brown University Computer Science Department

August 2020 - Present

- Fall 2021: Design and Implementation of Programming Languages (CS 173)
- Fall 2020: Intro to Computer Systems (CS 33)
- Guides students at weekly code and conceptual hours, responds to student questions on course forum page, and revises assignments and solution code

Math and Physics Tutor

Brown University Sheridan Center

October 2019 - Present

- Prepares and delivers weekly lessons for multiple groups of five students
- Courses tutored: Probability and Statistics (Fall 2021, Spring 2021, Fall 2020, Summer 2020), Introductory Mechanics (Spring 2020), and Multivariable Calculus (Fall 2019)

SKILLS & SELECTED COURSEWORK

ENGAGEMENT & AWARDS

- C · C++ · Python (NumPy, Pandas, TensorFlow) · Java · OCaml · JavaScript · AWS/GCP · French
- **Fall 2021:** Software Security · Computer Graphics · Computational Probability
- **2020-2021:** Operating Systems · Compilers · Prescriptive Analytics · Programming Languages · Algorithms · Complex Analysis · Real Analysis
- **2019-2020:** Machine Learning · Computer Vision · Abstract Algebra · Computer Systems (C and x86 Assembly) · Statistics I · ODEs · Circuits · E & M
- **2018-2019:** Intro to Programming, Algorithms, and Data Structures · Linear Algebra · Vector Calculus · Classical Waves · Mechanics

Brown University Band

Vice President

Nov. 2019 - Nov. 2020

- Set performance schedule and prepared marching forms for [field and ice shows](#)
- Acted as primary contact between Brown Athletics and the Band

National Merit Scholar

May 2018

MA Speech & Debate State Champion

Student Congress

April 2017