Charlie Gagnon

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EDUCATION

Brown University — September 2018 - May 2022
Sc.B. – Computer Science — *Providence, RI*

Natick High School — September 2014 - June 2018
— *Natick, MA*

WORK EXPERIENCE

Software Engineering Intern — May 2021 - September 2021
MathWorks Engineering Development Group

· 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 — September 2020 - Present
National Park Service - South Florida / Caribbean Network

· 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 — August 2020 - Present
Brown University Computer Science Department

· 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 — October 2019 - Present
Brown University Sheridan Center

· 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

· 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

ENGAGEMENT & AWARDS

· **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