Sébastien Brown

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Citizenship: American, French, British

EDUCATION

Amherst College, Amherst, MA, US – Graduate Class of 2024
Triple Major Bachelor of Arts in Mathematics, Computer Science & Physics; GPA: 3.86/4.00
- Senior Honors Thesis in Computer Science - graduated Magna Cum Laude with the Computer Science Prize
- Math Club Co-President, Physics Club Executive Board, International Students Association Publicity Chair, Entrepreneurs Society Event Chair, Quant Club

Lycée Français Charles de Gaulle, London, French Baccalaureate Scientific Section   *September 2015 – June 2019*
- Highest Honors (19.47/20)
- SAT I: 1580 (Math: 800 / Reading: 780), SAT II: French (800), Math II (800)

Online Certifications: Google Data Analytics Professional Certificate, Akuna Capital Options 101, Goldman Sachs Engineering Virtual Experience, Google Cloud Machine Learning for Trading Specialization, Emory Management Consulting Specialization

PROFESSIONAL EXPERIENCE

Honors Thesis in Computer Science, Department of Computer Science, Amherst College   *September 2023 – May 2024*
Principal Investigator: Assistant Professor Lillian Pentecost
- Studied the potential for eNVM cache-level usage in running edge computing applications on resource-constrained hardware.
- Identified memory designs exhibiting better latency and energy characteristics at L2 cache level for two key device use cases.
- Received the Computer Science Prize, which recognizes thesis quality and overall achievement in Computer Science.

Gregory S. Call Undergraduate Research Fellow, Department of Computer Science, Amherst College   *June – August 2023*
Principal Investigator: Assistant Professor Lillian Pentecost
- Analyzed performance markers of agricultural sensor software on various hardware platforms (Arduino, Raspi).
- Identified use cases of embedded non-volatile memory technologies (eNVMs) to optimize performance of sensing software.
- Assessed suitability of various eNVMs by comparing benchmark metrics over a range of memory access patterns.

HP Tech Ventures Corporate Venture Capital & Business Analytics Remote Extern, Paragon One   *September – November 2022*
- Researched metrics, industry data, team, and business models for five promising startups specializing in hybrid work.
- Leveraged Excel, SQL and Tableau to clean, analyze and visualize a 50,000 row Excel dataset and identify distinct trends.
- Created and presented a pitch deck to recommend a particularly attractive startup to HP for further investment due diligence.

Undergraduate Research Fellow, Manning College of Information & Computer Science, UMass Amherst   *June – August 2022*
Principal Investigator: Distinguished Professor Prashant Shenoy
- Trained time series forecasting models predicting 24h carbon emission rates using real-time data from the CO2 Signal API.
- Created and maintained a MySQL server to store, query and update incoming research data and facilitate data processing.
- Introduced 15 high school students to Python and Android development as part of the UMass Turing Summer Program.

Summer Undergraduate Research Fellow, Department of Physics & Astronomy, Amherst College   *June – August 2021*
Principal Investigator: Professor Jonathan R. Friedman
- Designed new loop-gap resonators and capacitors for use in novel applied electric field experiments at ultra-low temperatures.
- Improved device tuning accuracy by 300% by modifying a magnetic probe to implement in-situ rotation of crystal samples.
- Corroborated past experimental data by collecting and analyzing experimental data using LabVIEW and Python.

LEADERSHIP EXPERIENCE

Teaching Assistant & Grader for COSC-171: Computer Systems & PHYS-226: Experimental Physics   *February – May 2023*
- Graded weekly prelab assignments, problem sets and programming assignments for 80+ students.
- Organized weekly concept and assignment review sessions for 80+ students of varying levels.
- Led selected class lectures and exam review sessions, re-selected as teaching assistant for COSC-171 for February to May 2024.

Teaching Assistant & Peer Tutor for COSC-111: Introduction to Computer Science   *September – December 2022*
- Supervised and aided 20+ students completing time-sensitive coding assignments during weekly in-person labs.
- Assisted 60+ students across 3 class sections with assignments and conceptual questions during weekly help sessions.
- Awarded a peer tutor position to hold weekly 1:1 meetings with struggling students to reinforce course fundamentals.

Tutoring, London & Remote   *September 2019 – Present*
- Organize and teach private SAT tutoring sessions and design personalized study plans for up to 4-6 students weekly.
- Also tutor Math, Physics, French. Helped students achieve improvements of up to 100% in school exams and 160 points on SAT.

AWARDS

- Grand Prize at HackUmass XI Hackathon 2023, 1st place at Amherst College Hack The Herd Sustainability Hackathon 2023
- 3rd in HackMIT Y Combinator Startup Pitch Competition 2023
- 2nd in Amherst College Mammoth Innovation Challenge Pitch Competition 2024
- 2nd in NW Europe Region at French National Geoscience Olympiads; British Math Challenge Senior (Silver)/ Intermediate (Gold)
- **Fencing**: British School Team Champion 2016, 2nd place Elite Epée Circuit Grand Final 2017, London Youth Champion 2018, British Team Regional Champion representing London in 2017/2018

SKILLS/ HOBBIES

- **Languages**: French/English (Native Proficiency), Russian (Limited Working Proficiency)
- **Other skills:** Piano (12 years) – Grade 7 Certified, Skiing (8 years) – Gold Star, Sailing (8 years), Fencing Coach (2 years)
- **Coding & IT:** *Significant Experience:* Java, Python, LaTeX, Git, Pandas, Microsoft Office Suite
  Moderate Experience: SQL, Machine Learning, SolidWorks, MATLAB, Tableau, C, LabVIEW, HTML, CSS, Javascript