

EDUCATION

Harvard University Cambridge, MA <i>John A. Paulson School of Engineering and Applied Sciences: A.B. in Computer Science, S.M. (Concurrent Masters) in Computer Science</i> <ul style="list-style-type: none">Cumulative GPA: 3.83/4.0 Extracurricular Activities: Harvard Tech for Social Good, Harvard Undergraduate Capital Partners, Harvard Computer Society, Harvard Bhangra.Relevant Coursework: Data Structures and Algorithms, Computing Hardware, Systems Programming and Machine Organization, Linear Algebra and Vector Calculus, Linear Algebra and Real Analysis I, Discrete Mathematics.	<i>Expected May 2026</i>
South Windsor High School South Windsor, CT <ul style="list-style-type: none">Valedictorian Cumulative GPA: 4.46/4.0 SAT: 1580/1600 (Math: 800/800, EBRW: 780/800) 2022 Coca-Cola Scholar Harvard Prize Book Award2x AIME Qualifier AIME Score: 11 USA Math Olympiad (USAMO) Index: 219.5	<i>August 2018 - June 2022</i>

WORK EXPERIENCE

Harvard Programming Languages Group <i>Undergraduate Researcher</i> Cambridge, MA <ul style="list-style-type: none">Conducting research in self-verification for large language models and generative AI under Professor Nada Amin as part of the <i>Program for Research in Science and Engineering</i>.Improving theorem generation and verification using decomposition. Developed a plugin for ChatGPT to refine LLM-generated Coq proofs using verification.	<i>June 2023 - present</i>
Harvard University <i>Computer Science Teaching Assistant</i> Cambridge, MA <ul style="list-style-type: none">Grading student assignments and holding office hours for <i>COMPSCI E-20 Discrete Mathematics for Computer Science</i> under Dr. Rebecca Nesson.	<i>January 2023 - May 2023</i>
North South Foundation <i>Software Engineering Intern</i> Chicago, IL (Remote) <ul style="list-style-type: none">Developed online donations platform using React and Node.js, and implemented transaction processing using Stripe and Braintree APIs.	<i>January 2022 - June 2022</i>

EXTRACURRICULAR & LEADERSHIP EXPERIENCE

Harvard Tech for Social Good <i>Senior Software Engineer</i> <ul style="list-style-type: none">Led a team to develop web apps for City of Boston Visual Analytics and OkaySo (detailed below).	<i>September 2022 - present</i>
Harvard Undergraduate Capital Partners <i>Sourcing Analyst</i> <ul style="list-style-type: none">Sourcing early-stage startups and connecting them with prominent venture capital firms.	<i>September 2022 - present</i>
MetricMix, LLC <i>Founder and Mobile App Developer</i> <ul style="list-style-type: none">(Using Swift for iOS App Development) Developed GeoScholar, a geography quiz app; Scholar.ly, an advanced GPA calculator; Gene Xpress, a protein synthesis simulator; GSEF Official, an economics resource app; and ReadSpeak, an accent translation app.	<i>September 2018 - present</i>

PROJECTS AND CERTIFICATIONS

Oasis Decentralized Social Media Platform <i>React, Solidity, Moonbeam, Polkadot</i> <ul style="list-style-type: none">Decentralized social media platform built on web3 technologies that rewards users for sharing their thoughts freely and anonymously.Token payout system built on Moonbeam staking DAO incentivizes members to wager on the popularity of their post, measured through upvote milestones.1st Place Winner in Polkadot x EasyA @ Harvard Hackathon Moonbeam Track, Grand Finalist.	<i>June 2023</i>
PaperScope AI Literature Review Platform <i>React, Express.js, Node.js, Langchain, OpenAI</i> <ul style="list-style-type: none">Platform that uses large language models (GPT-4) to streamline the literature review process for researchers by answering relevant questions and synthesizing material across multiple papers (React, Express.js, Node.js, Langchain, OpenAI).	<i>June 2023</i>
MIPS Multicycle Processor RISC Instruction Set Architecture <i>SystemVerilog, C++</i> <ul style="list-style-type: none">Designed and implemented a branch-optimized MIPS Multicycle Processor using SystemVerilog under Vijay Janapa Reddi.Developed C++ scripts for automating the testing and validation of the processor, streamlining the debugging process and ensuring the reliability and accuracy of the design.	<i>May 2023</i>
City of Boston Visual Analytics Portal Expenditures Visualization Platform <i>React, Django, Plot.ly</i> <ul style="list-style-type: none">Led a team of 3 software engineers to create a web platform to provide visualizations and insights regarding spending in the City of Boston.Created front-end data visualizations and set up backend API requests.	<i>May 2023</i>
OkaySo Expenditures Visualization Platform <i>React, Express.js, Node.js</i> <ul style="list-style-type: none">Co-developed a web portal for OkaySo for experts to answer anonymous young adults' questions regarding identity, relationships, mental health, and more.Constructed real-time chat messaging framework (0.5-sec latency). Built backend and implemented all API endpoints for application.	<i>December 2022</i>
Table Tennis CV Table Tennis Game-Tracking Application <i>Python, OpenCV, Scikit-Learn</i> <ul style="list-style-type: none">Built a computer vision-machine learning application to track active table tennis gameplay using Python and OpenCV.Leveraged frame differentiation and elliptical Hough transform to track a moving ball in view.Trained a machine learning model using the Scikit-Learn library in Python to predict where a ball lands based on the initial return location.	<i>August 2021</i>
Java Decaffeinated Published Book View on Amazon	<i>October 2021</i>
The Python Starterpack Published Book View on Amazon	<i>April 2020</i>
Shortest Paths Revisited and NP-Complete Problems Stanford Online Certificate	<i>January 2021</i>
Graph Search, Shortest Paths, and Data Structures Stanford Online Certificate	<i>December 2020</i>
Greedy Algorithms, Minimum Spanning Trees, and Dynamic Programming Stanford Online Certificate	<i>December 2020</i>
Divide and Conquer, Sorting and Searching, and Randomized Algorithms Stanford Online Certificate	<i>November 2020</i>

SKILLS AND INTERESTS

Languages: English (fluent) Tamil (native) French (business proficiency)
Programming Languages and Frameworks: Python, C++, Java, JavaScript, React, Node.js, Express.js, Swift, System Verilog, Dart, Langchain, OpenAI, Django, Solidity
Computer/Software: Alexa Developer Console, Autodesk Inventor, C++, Canva, Figma, Firebase, Flutter, Git, GitHub, Homebrew, HTML/CSS, LaTeX, Markdown, Matplotlib, Microsoft Office Suite, MongoDB, Notion, NumPy, Onshape, OpenCV, PyCharm, SoftCover, Visual Studio Code
Interests: Tennis Piano Chess Indian folk dance