PRANAV RAMESH

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EDUCATION

Harvard University
John A. Paulson School of Engineering and Applied Sciences
Cambridge, MA 02138
Expected May 2026
Major GPA: 4.0/4.0
Cumulative GPA: 3.92/4.0
A.B./S.M. in Computer Science (Concurrent Masters)
Secondary in Economics

South Windsor High School
South Windsor, CT 06074
August 2018 - June 2022
GPA: 4.46/4.0 (Valedictorian)
SAT: 1580/1600 (Math: 800, EBRW: 780)

Relevant Coursework:
Discrete Mathematics for Computer Science (Harvard Extension School)
Intensive Introduction to Computer Science Using Java (Harvard Secondary School)
Intermediate Microeconomics
Linear Algebra and Real Analysis I (Harvard Extension School)
Management and Technology
Systems Programming and Machine Organization
Vector Calculus and Linear Algebra I

SKILLS

Languages: English, Tamil, French
General: adaptability, collaboration, communication, innovation, public speaking, problem-solving, research, writing
Computer/Software: Alexa Developer Console, Autodesk Inventor, C++, Canva, Dart, Excel, Figma, Firebase, Flutter, Git, GitHub, Homebrew, HTML/CSS, Java, JavaScript, LaTeX and Overleaf, Markdown, Matplotlib, Microsoft Office Suite, Notion, NumPy, Onshape, OpenCV, PowerPoint, PyCharm, Python, React, SoftCover, Swift, Visual Studio Code, Word
Other Technical: business analytics, data science, data structures and algorithms, iOS app development, object-oriented programming, product design, product engineering, robotics, statistical modeling, web development/design

WORK EXPERIENCE

Teaching Assistant, Grader - The Art of Problem Solving *May 2022 - present*
- Grading student assignments for computer science courses.
- Serving as a teaching assistant for Introduction to Programming with Python.

Software Engineering Intern - North South Foundation *January 2022 - June 2022*
- Developed online platform using React / Node.js and leveraged Stripe and Braintree APIs to process transactions.
- Constructed authentication system for donors to access payment portal easily.
- Created an algorithm for donors to choose to schedule donations.

Math Instructor - Mathnasium *August 2020 - August 2022*
- Developed and implemented customized learning plans and curricula for individual students.
- Taught arithmetic through calculus, trained students for the MathCounts and AMC 8/10/12 contests, and tutored for the SAT/PSAT and ACT math sections.

EXTRACURRICULAR & LEADERSHIP EXPERIENCE

Software Engineer - Harvard Tech for Social Good *September 2022 - present*
- Collaborating with a team of software engineering members to develop a web app for OkaySo (React / Node.js). This platform connects users with experts to ask questions regarding health, identity, relationships, stress, and more.

Sourcing Analyst - Harvard Undergraduate Capital Partners *September 2022 - present*
- Sourcing early-stage startups and connecting them with prominent venture capital firms.

Founder, Author, and Programming Instructor - CodeSavant *April 2020 - present*
- Developed a curriculum and taught beginner/intermediate Python programming classes nationwide, raising ~$2,000 for COVID-related causes.
- Published programming books on Amazon and created CodeSavant YouTube Channel (~950 subs/175k+ views).

Founder and Mobile App Developer - MetricMix, LLC *September 2018 - present*
- (Using Swift) 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.

PROJECTS AND CERTIFICATIONS

Pillola (pranavramesh.com/projects1.html)
- Smart, secure pill dispenser designed for use in senior living facilities.
- Designed all dispenser parts and conducted structural analyses using Autodesk Fusion 360.
- Used Arduino and C++ to automate pill dispensing, scheduling, and secure fingerprint/keypad authentication.

Table Tennis CV (pranavramesh.com/projects1.html)
- Computer vision-machine learning application to track active table tennis gameplay using Python and OpenCV.
- Leveraged frame differentiation and elliptical Hough transform to isolate and track a moving ball in view.
- Trained a machine learning model using Scikit-Learn to predict where a ball lands based on the initial return location.

GeoScholar (apps.apple.com/us/app/geoscholar/id1453068019)
- Designed geography bee preparation app using Swift to develop all training and fact pages and StoreKit to process in-app purchases, and leveraged Firebase to store and request quiz decks.

The Python Starterpack (amazon.com/Python-Starterpack-Simple-Introduction/dp/B0874PCH1J/)
- Introductory Python programming book covering types, control structures, and object-oriented programming concepts.

Java Decaffeinated (amazon.com/Java-Decaffeinated-Simple-Introduction/dp/B09K5TQWKC/)
- Introductory Java programming book covering types, control structures, and object-oriented programming concepts.

Shortest Paths Revisited and NP-Complete Problems Certificate *January 2021*
www.coursera.org/account/accomplishments/certificate/TVSZEDGE45XS

Graph Search, Shortest Paths, and Data Structures Certificate *December 2020*
www.coursera.org/account/accomplishments/certificate/8J29KCWZYQAY

Greedy Algorithms, Minimum Spanning Trees, and Dynamic Programming *December 2020*
www.coursera.org/account/accomplishments/certificate/8PB2UFWXEEKS

Divide and Conquer, Sorting and Searching, and Randomized Algorithms *November 2020*
www.coursera.org/account/accomplishments/certificate/MJ9RL2JNEU26