

Aakash R. Kalmady

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EDUCATION

University of Maryland

B.S. in Computer Science

- **GPA:** 3.53/4.00

- **Related Coursework:** Data Structures and Algorithms (Java), Discrete Mathematics, Computer Systems (C, Assembly), Linear Algebra (MATLAB), Applied Statistics and Probability, Multivariable Calculus (MATLAB).

College Park, Maryland

Expected Graduation, 2026

EXPERIENCE

Climate Computing Researcher

First Year Innovation and Research Experience (FIRE)

- Managing Linux filesystems on high-performance computing system through Unix and the Secure Shell (SSH).
- Analyzing weather and climate systems to input data into programs and scripts using VIM to evaluate and interpret climate patterns.

College Park, Maryland

Jan 2024 – Current

App Development Club (URL: <https://appdevclub.com>)

Bootcamp Member

- Created 5+ projects to learn Full-Stack Development to be able to apply my skills to various projects for Fortune 500 companies including Amazon, Lockheed Martin, and U.S. News to support socially impactful corporate initiatives for a club that saves over \$500,000.

College Park, Maryland

Feb 2024 – Current

Bentley Systems

Career Practicum

- Studied the application of software to design CAD projects through workshops: MicroStation and Context Capture.
- Learned how various roles collaborate in a professional environment with knowledge gathered from local and international employees from different functional areas.

Exton, Pennsylvania

Jul 2022

PROJECTS

Maryland Dhoom Website

Full-Stack Developer

- Developing a full-stack website to promote and raise awareness for Maryland Dhoom, the University of Maryland's award winning DDN (Desi Dance Network) premier Bollywood-Fusion competitive dance team.
- Using Node.js, React.js, JavaScript, and HTML/CSS for front-end visuals and back-end functionality to showcase the team's rich history
- Planning to implement SQL databases for current team members' personas and accounts.

Virtual

May 2024 – Current

Personal Website (URL: <https://aakashkalmady.dev>)

Front-End Web Developer

- Designed and developed a personal website from scratch to showcase my professional work, skills, and other hobbies by using HTML, CSS, and JavaScript, mocked-up designs using Figma.
- Integrated responsive design for viewing across devices of different size and 5 web browsers, managed content including photos, videos, portfolio work, socials, and contact form.

Virtual

Jun 2024 – Sep 2024

Over-Terrain Vehicle (OTV)

Design Lead and Programmer

- Led the design of the OTV by using Autodesk Fusion 360 to develop multiple iterations of the design, 3D printed and laser cut over 15 custom parts for efficient tasks: flame extinguishing and navigation.
- Developed C++ software to integrate Arduino and robotic subsystems, created GPS-based navigation code and control algorithms using ultrasonic sensors, mapped mission site topography using ML with a digital vision system.

College Park, Maryland

Aug 2023 – Dec 2023

VEX Robotics (Source Code: <https://www.github.com/aakash-kalmady/SpinUp-81Y>)

Programming Lead and Designer for teams 81Y and 81H

- Developed C++ software and algorithms implementing the VEX PROS API for control of robotic hardware, created ML algorithms using optical, ultrasonic, and inertial sensors (IMU) for autonomous control.
- Tuned a PID controller using dynamic array vectors to store data in a .csv file, graphed and analyzed 200+ plots in Excel, simulated the controller in MATLAB.
- Design Award at the VEX World Championship (2023, Dallas, TX), Champions at the CREATE U.S. Open Championship (2023, Council Bluffs, IA), and a top 5 finish in the world for the Programming Skills challenge (2022, Dallas, TX).

Downingtown, Pennsylvania

Sep 2021– May 2023

SKILLS

Programming: Python, Java, JavaScript, C, C++, Assembly, HTML, CSS, MATLAB, Front-End, Back-End, Full-Stack Development, Web Development

Technologies: React.js, Node.js, MongoDB, SQL, Eclipse IDE, Visual Studio Code, Git, GitHub, Unix, VIM, Figma, Autodesk Fusion 360, Inventor

General: Teamwork, Leadership, Collaborative, Analytical, Accountable, Performance Driven, Eager to Learn