

Arjun Bakhale

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EDUCATION

EXPECTED GRADUATION DATE: JUNE 2025

Briar Woods High School and Academies of Engineering and Technology's ITCS pathway

GPA: **4.62** SAT: **1530**

Skills: Proficient in Python, React/React Native, Computer Vision, Java, and HTML/JS/CSS.

INTERNSHIPS AND PROJECTS

June 2022 – PRESENT

Mobile App & Computer Vision Intern, Kashmir World Foundation

Kashmir World Foundation is a non-profit organization that develops autonomous systems to help counter the poaching of endangered species all over the world.

- Evaluate optimal epochs and batch sizes for AI Neural networks in YOLOv5 and virtual GPUs, allowing for a cost and time-effective image model training.
- Develop Python flight scripts using the dronekit software in a Ubuntu virtual machine enabling drones to identify animals with live camera feed in real time.
- Program fluid components and screens for a wildlife conservation mobile app with React Native for an elevated user experience.
- Lead the foundation's De-Extinction project which trains an AI model with multiple incomplete DNA sequences of extinct species to determine a complete DNA sequence, enabling some to be reintroduced in the future.
- Research and train siamese neural networks to compare individual animals within a species, allowing for effective tracking of individuals.
- Currently at over 500 hours of experience.
- Addressed over 1000 students on the WTCI Youth Diplomats Intern Panel to inspire students to leverage internship opportunities in IT.

February 2023 – PRESENT

CIO, Nivaro

- Manage Technology for an EdTech startup dedicated to converting 700+ young innovators' ideas into groundbreaking AI projects.
- Assist with coding and operations using technologies like React.js, Node.js, and TailwindCSS to develop curriculum websites and teach the program.
- Achieved media recognition on CBS WUSA9's Great Day Washington, ABC, DCNewsNow, LoudounNow, and other outlets.
- Designing curriculum for integration into the local School District's curriculum, and developing a middle school class.

May 2023 – PRESENT

Board Member, LCPS Computer Science Advisory Board.

- Collaborate with LCPS directors and business leaders as a representative of the student body to redesign the county's computer LCPS Computer Science program to better equip aspiring CS with the tools they need to succeed in the ever-evolving market.
- Design and engineer a website for LCPS students, demystifying the process of course selection using an intuitive questionnaire.

April 2023

Team Leader, AI Lane Detector

- Developed a Python lane detection system, incorporating Gaussian blur, Canny edge detection, and Hough transform, for a lane departure warning mechanism for real-time applications.
- Developed a React Native mobile app for seamless integration with Python lane detection, elevating drivers' safety measures with their phones.

March – PRESENT

Team Leader, Quantum Computing DNA Sequencer.

- Engineered Python code to decipher the human DNA genome and find mutations
- Integrated with IBM's virtual Quantum Computers to accelerate the runtime of this lengthy task.

Lead Web Developer, Student Coders of Virginia

- Refactored the website with React to enhance user-friendliness and boost modularity.
- Creating a beginner-friendly Python summer course for the program's 500+ members.

AWARDS AND RECOGNITION

National Competitor, TSA National, State, and Regional conference, Solar Sprint

- Engineered a working model for a solar-powered car.
- Placed best in the state and qualified in the top 50 teams nationally.

Vocalist, Performer at Carnegie Hall & County/District/State Choir

- Sang with leading U.S. vocalists for a prestigious Carnegie Hall performance.
- Secured a position in the County and District choir 4 times since 2019 through rigorous auditions.

International Qualifier, ACSL

- Two-time qualifier for the international All-Stars competition in the American Computer Science League

RELEVANT COURSEWORK

Currently Enrolled:

- Academies of Engineering and Technology
Computer Science
- AP Calculus BC
- AP Statistics
- AP Language and Composition
- AP Economics

Completed:

- AP Biology: 5
- AP World History: 5
- Calculus 1