# Akshay Aravind

Burlington, MA | [LinkedIn](LinkedIn) | 617-306-5939 | akshayaravindpr@gmail.com

## EDUCATION

**Cornell University ~ College of Engineering**                                        **Ithaca, NY**
*Bachelor of Science in Computer Science*                                          *Expected 2025*
**GPA**: 4.00 – Dean's List | ***Related Courses***: Object-Oriented Programming & Data Structures (Java), Multivariable Calculus, Calculus II for Engineers, Physics for Engineers, Intro to Biomedical Engineering, General Chemistry for Engineers

**Burlington High School**                                                          **Burlington, MA**
*Class Rank: Top 5%*                                                                  *June 2022*
**GPA**: 4.46/5.00 | High Honors List ~ all years | **SAT**: Reading and Writing- 710, Math- 800
***Notable Courses***: AP Calc BC, AP Statistics, AP Biology, AP Language and Composition, AP Chemistry, AP World History
***Clubs***: Mock Trial Team (Founder), Science National Honors Society (President), NHS, Peer Tutor, Track & Field
***Awards***: National Latin Exam Gold Medal, 2019 Scholastic Writing Gold Key, RCM State Certificate of Excellence (Piano-Highest Score in State), Junior Book Award

## TECHNICAL SKILLS

● **Back-End Dev Tools**: Python, Java, C++, OOP Programming, Data Analysis
● **Front-End Dev Tools**: JavaScript, HTML5, CSS3, Java Swing
● **Developer Tools**: GitHub, VS Code, IntelliJ, Docker, MongoDB

## PROJECT EXPERIENCE

**Autonomous ArUco Tag Detection**                                                **Cornell University**
*Cornell Mars Rover*                                                          *March 2023 - April 2023*
● Implemented computer vision software for ArUco tag detection for the autonomous portion of competition using OpenCV
● Utilized a 3x3 camera distortion matrix parameter for detection compatibility with any camera, such as for use on drones
● Precise pose estimation in the function enables autonomous navigation with 95% accuracy, dependent only on camera resolution

**IMC Trading Prosperity Challenge**                                                      **Remote**
*Competition Participant*                                                             *March 2023*
● Placed in the top 10% of 7000+ competitors in team of 4, coding over a 10 day sprint of 5 rounds each of 48 hours in length
● Created trading algorithms in Python to maximize profit in a simulated volatile market, collaborating with peers using Github
● Analyzed simulated market data given in CSV files of 100k+ lines using pandas, NumPy, and visualized using Matplotlib

**Full Stack Mini Projects**                                                     **University of Helsinki**
*Full Stack Open Online Course*                                                   *Sep 2022 - Present*
● Used tools such as JavaScript and Node.js for functional applications including a phonebook and course information websites
● Managed backend databases with MongoDB and connected to frontends with React, following RESTful API guidelines

## EXTRACURRICULAR ACTIVITIES

**Cornell Mars Rover**                                                            **Cornell University**
*Software Team Member*                                                        *October 2022 - Present*
● Chosen for team that competes in the University Rover Competition, working with 50+ peers across engineering disciplines
● Works on the software team with 10 members, using Python, C++, and Github to design rover controls and autonomy

**Science National Honors Society**                                          **Burlington High School**
*Chapter President*                                                     *September 2020 - June 2022*
● Ran school's chapter centered around furthering scientific literacy of peers, managed members and meeting presentations
● Organized several volunteer opportunities such as Earth Day Clean-Up, with over 40 students participating across the club

**Mock Trial Club**                                                          **Burlington High School**
*Club Founder*                                                          *September 2019 - June 2022*
● Consistently performed well in Mass Bar competitions, dedicating over 20 hours a week for team success into states
● Maintained club growth for 3 years, establishing a strong foundation for future success as the school's first Mock Trial Team

**Lahey Hospital & Medical Center**                                          **Burlington High School**
*Patient Advisor & Lobby Attendant*                                           *June - August 2021*
● Interacted with over 100 patients throughout Lahey hospital, developing interpersonal skills through 60 hours of volunteering
● Promoted a welcoming environment by building a strong relationship and connections with coworkers, patients, and families

## SKILLS AND INTERESTS

**Skills:** Piano, Fluent in Malayalam, CPR & AED Certified
**Interests:** Working Out & Fitness, Basketball, Piano, Health, Tyler the Creator