

# Akshay Aravind

Burlington, MA | [Personal Website](#) | [LinkedIn](#) | [GitHub](#) | [akshayaravindpr@gmail.com](mailto:akshayaravindpr@gmail.com) | 617-306-5939

## EDUCATION

### Cornell University, College of Engineering

Ithaca, NY

**GPA: 3.98/4.00** ~ Bachelor of Science in Computer Science ~ Dean's List (All Semesters)

Expected May 2026

Relevant Courses: *Object-Oriented Programming & Data Structures, Functional Programming, Discrete Math, Statistics, Calc III*

**Burlington High School:** GPA: 4.46/4.00 ~ Class Rank: Top 5% ~ High Honors List

Burlington, MA

## TECHNICAL SKILLS

- **Languages:** Python, Java, OCaml, JavaScript, TypeScript, HTML/CSS, C++, SQL, LabVIEW
- **Technologies:** React, ChatGPT, Prompt Engineering, LangChain, Angular, Java Swing, FastAPI, RESTful API
- **Developer Tools:** Git, MySQL, MongoDB, VS Code, IntelliJ, Docker, Postman

## EXPERIENCE

### Abris

Andover, MA

Software Engineer Intern

June 2023 - Aug 2023

*Tech Stack: React, Angular, FastAPI, LangChain, Python, OpenAI API, ChatGPT, Pinecone, Git*

- Spearheaded the development of **3+** different projects at Abris, a tech startup focusing on novel applications of **AI technology**
- Integrated product retrieval on **Pinecone** databases for [uprate.ai](#) by interpreting **user chats** sent to a chatbot to fetch product data
- Leveraged **React** and **LangChain** to develop interactive UIs with **AI functionality**, increasing user engagement by over **30%**

### Campbell Lab

Boston University

Computational Biomedicine Research Intern

May 2023 - Present

*Tech Stack: R, Python, Shiny, Git*

- Develops data analytics software as a paid intern for **Dr. Joshua D. Campbell's** Computational Biomedicine Lab at BU
- Contributes to **open-source** packages, actively working on **5+** package functionalities, expanding on source code by over **15%**
- Implements **plotting** and **data analysis** functions in R packages that handle large genomic datasets of over **500k** data point

### Cornell Mars Rover

Cornell University

Controls Software Team Member

Oct 2022 - Present

*Tech Stack: C++, Python, OpenCV, LabVIEW, Docker, Git*

- Develops software for the team's rover on CMR, a robotics team that competes yearly in the **University Rover Challenge**
- Implements **autonomy** software for the rover with **OpenCV** and **C++**, improving self-driving functionality by over **35%**
- Interfaces with on-board hardware through **LabVIEW** and **Python** scripts, autonomously collecting data from soil samples

### Cornell FinTech Club

Cornell University

Financial Software Engineer

Sept 2023 - Present

*Tech Stack: Python, React, JavaScript, OpenAI API, Postman*

- Member of the **software team**, working with **12+** analysts and engineers to develop novel applications within financial tech
- Creating an **AI earnings call summarizer**, leveraging **ChatGPT** to aggregate key talking points and present them formally

## PROJECTS

### FitnessAI ~ [Demo](#)

Personal Project

*Tech Stack: React, Python, LangChain, FastAPI, OpenAI API, ChatGPT*

June 2023 - July 2023

- Created an **AI app** using **React**, comprised of a fully interactive **fitness chatbot** and workout generator built from scratch
- Leveraged **ChatGPT 3.5** to generate advice based off of user inputs, utilizing **LangChain** for autonomous prompt engineering

### singleCellTK Package ~ [github.com/akshayarav/singleCellTK](https://github.com/akshayarav/singleCellTK)

Campbell Lab

*Tech Stack: R, Shiny, Python, Git*

June 2023 - Present

- Contributed to the **open source** singleCellTK R package produced by the Campbell Lab for analysis of single cell RNA-seq data
- Implemented a **bubble plot visualization and scaling tool** that aggregates large RNA-seq data using the **ggplot2** R package

### Autonomous ArUco Tag Detection

Cornell Mars Rover

*Tech Stack: C++, Python, OpenCV, Docker*

Mar 2023 - Apr 2023

- Implemented **computer vision** software for ArUco tag detection in the autonomous portion of rover competition using **OpenCV**
- Precise pose estimation enables autonomous navigation with **95% accuracy**, accurately identifying markers from **30+** feet away

### IMC Trading Prosperity Challenge

Coding Competition

*Tech Stack: Python, Jupyter Notebook, Matplotlib, pandas, Git*

Mar 2023

- Placed in the **top 10%** of competitors through collaboration with a team of **4**, coding over a 10 day sprint of **5 rounds each**
- Analyzed simulated market data in large CSV files of **100k+ lines** with pandas, effectively visualizing data using Matplotlib

**Interests:** Lifting and Health, Boston Celtics, Rap and Hip Hop, Piano, Traveling, Competitive Video Games