ARYAN TIPNIS

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EDUCATION

University of Massachusetts Amherst — Amherst, MA
Masters of Science in Computer Science; Bay State Scholar — *Expected Graduation : Dec 2026*

University of Massachusetts Amherst — Amherst, MA
Bachelor of Science in Computer Science; Minor in Business; GPA: 3.72 — Sept 2021 - May 2025

Related Coursework: Data Structures & Algorithms, Software Engineering, Artificial Intelligence, Machine Learning, Web Development, Search Engines, Object-oriented Programming.

SKILLS

Programming Languages: Python, Java, C++, JavaScript, Typescript, Kotlin, SQL, NoSQL, HTML
Web Technologies: React, Node.js, Flask, REST APIs, Spring Boot, Android Studio, MongoDB, AWS
Tools & Libraries: Git, Github, LangChain, TensorFlow, NumPy, Pandas, Scikit-learn, MS Excel
Awards & Honors: Baystate Scholarship (UMass), Chancellor's Award of $16K/yr, Dean's List Mentions (Fall 21 - Spr 25)

RELEVANT EXPERIENCE

Solutions Engineering Intern — Schaumburg, IL
Bitwise Inc. — June 2023 – Aug 2023
- Participated in end-to-end development of an AI project built on OpenAI's API using React, Python and Langchain.
- Designed 7 REST APIs using Java and reduced API response speed by 30% to support high availability and scalability.
- Spearheaded QA efforts by unit testing and debugging to enhance code reliability and boost product stability by 40%.
- Collaborated in an Agile SDLC and leveraged CI/CD pipelines for streamlined deployment and automation.
- Conducted code reviews to uphold best practices, improve maintainability, and optimize performance.

Software Engineering Intern — Lexington, MA
Keva Health — Dec 2022 – Feb 2023
- Enhanced the website by optimizing the front-end code, improving website performance by 26% by reducing load times and browser caching techniques, leading to better user experience and improved Google search rankings.
- Led data-driven keyword research to refine SEO strategies, boosting audience engagement by 38%.

Product Manager — Amherst, MA
Build UMass — Sept 2023 – May 2024
- Managed a team of 5 engineers to develop a website for an NGO using React, focusing on clean frontend design, scalability and user engagement, achieving a 40% improvement in user metrics.
- Coordinated iterative development cycles with the client to ensure timely delivery and alignment with their goals.

Undergraduate Course Assistant — Amherst, MA
College of Information and Computer Sciences, UMass Amherst — Sept 2024 – Spring 2025
- Assisted with the administration of an Artificial Intelligence course of 180 students, held review sessions, graded assignments and proctored exams. Held 5 weekly office hours to provide one-on-one assistance.

PROJECTS (github.com/aryantipnis)

Umass Droplet App [Link] | *Swift, Java, Firebase, SQL, Flask* — iOS App Development
- Led a 5-member team & designed the front end of an app that navigates users to the nearest water stations on campus using Swift and other iOS SDKs. Integrated real-time user location tracking and water consumption tracking features.
- Deployed Firebase for user authentication & to store 50+ user information and created REST APIs using Flask.
- Collected data of 150 water filters and implemented a SQL relational database to store and support backend services.

Breast Cancer Classifier [Link] | *Python, Numpy, Pandas, Scikit-Learn, Matplotlib* — Machine Learning
- Trained a neural network classifier to detect breast cancer on a medical dataset, achieving 90+% accuracy on testing.
- Preprocessed and analyzed datasets to handle missing values, normalize features, and ensure data consistency.
- Analyzed model performance metrics like confusion matrices and ROC curves, to evaluate classification effectiveness.

Step Counting Algorithm | *React, Python, Javascript* — Wearable Technology
- Coded an algorithm to count steps taken with 85% accuracy, leveraging real-time data using a wearable accelerometer.
- Developed pattern recognition method to evaluate walking, running, etc. allowing for more nuanced activity tracking.
- Implemented data cleaning techniques to remove noise and improve signal quality, enhancing the accuracy by 18%.

Wearable Learning App [Link] | Android Studio, Kotlin — Android App Development
- Developed, optimized, tested an Android App using Kotlin and Android Studio to support embodied math learning in children through interactive UI components, while improving data collection for on-going classroom studies.
- Validated client-server communication flows to ensure accurate real-time data synchronization between app and server.