

Aryan Nair

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EDUCATION

Cornell University

Master of Engineering, Computer Science

Ithaca, NY

Expected Graduation: Dec 2025

University of Massachusetts

Bachelor of Science, Computer Science

Amherst, MA

Dec 2024

Relevant Coursework: Machine Learning, Intro to NLP, Software Eng, Networks, Algorithms, Intro to Databases

TECHNICAL SKILLS

Programming Languages: Javascript, Python, Java, C, SQL, Typescript, Go

Frameworks: React Native, Kotlin, Android Studio, Node.js, Swift, React.js, Next.js, Express.js, Django, Springboot

Tools: AWS (Amplify, Lambda, S3, DynamoDB), Langchain, MySQL, MongoDB, OpenCV, NumPy, Tensorflow, Git, Docker

EXPERIENCE

EliteCode

June 2024 – Present

Lead Developer — Swift, Node.js, MongoDB, GraphQL, AWS Lambda, Amplify, Next.js, Typescript

Boston, MA

- Architected an **iOS microlearning app** designed for software interview prep using **SwiftUI**, **Node.js** and **AWS**
- Crafted features including user auth, AI-chatbot, streaks, achievements, pathway recommendation, and progress storage
- Enhanced system efficiency by migrating from **REST** to a **serverless GraphQL backend**, utilizing **AWS Lambda** and **API Gateway**, reducing the number of API calls by 5x and decreased average latency by 40%

Wearable Learning Cloud Platform

May 2024 – Dec 2024

Android Developer Intern — Android Studio, Kotlin, Java, Springboot

Amherst, MA

- Improved facilitation of in-class games by building an app for **WearableLearning** using **Android Studio & Kotlin**
- Revamped the UI by migrating from a fragment architecture to **Jetpack Compose**, creating over 10 reusable components within an **MVVM pattern**, leading to a 30% boost in app modularity and maintainability
- Implemented callback functions in **Kotlin** to interact with a **Springboot** server, using **STOMP** for server communication

Wireless and Sensor Systems Lab, UMass

May 2024 – Dec 2024

Mobile Engineering Intern — React Native, Node.js, DynamoDB, ESP32, Tensorflow, Python

Amherst, MA

- Developed an **Android** mobile app to accompany a blood pressure ring sensor, enabling **Bluetooth BLE5** communication with the **ESP32-powered piezo sensor** for sensor activation and data collection with a 30ms latency
- Deployed **Amazon DynamoDB** for real-time storage of blood pressure data, reducing latency by 40%

Impactsure Technologies

Jun 2023 – Aug 2023

Data Science Intern — Python, Django, OpenCV, Tensorflow, Hugging Face

Remote

- Developed a **Django** microservice to extract tabular data from financial documents with neural networks and **OpenCV**, integrated with SureXtract - a data extraction tool used by premier financial firms including Temenos and Axis Bank
- Fine-tuned Meta's **DETR neural network** using a custom dataset of 500+ documents manually labeled using VIA, allowing for the detection of unstructured and incomplete tables within bank reports with 80% confusion matrix accuracy

PROJECTS

TuneLink App | React Native, Node.js, Express.js, MongoDB, Expo

Mar 2023 – Aug 2023

- Built a music posting and playback system with sub-200ms processing and 99.9% reliability during concurrency tests
- Developed a search system with optimized indexing, enabling filtering by genre and user with query times under 150ms

ShareSpace Web App | React.js, Node.js, Express.js, MySQL, Sequelize.js, Mocha/Chai

Mar 2023 – Aug 2023

- Designed a **kNN algorithm** to match roommates based on normalized parameters, enhancing compatibility by 5x
- Assigned users into clusters to reduce the comparisons from 12 per user to 4 per user for a 3x boost in efficiency

MASSPirg Web App | React.js, Node.js, Express.js, MongoDB, AWS S3

Oct 2022 – May 2023

- Secured a pro-bono contract with a nationwide organization to revamp their website resulting in a 200% engagement boost
- Integrated **role-based user authentication**, improving content delivery efficiency by 15% and enhancing security
- Employed **AWS S3 buckets** for scalable cloud storage of images, improving image load time by 50%

LEADERSHIP & INVOLVEMENT

UMass Product Management Club | Co-President

Oct 2021 – Dec 2024