

Vivek Jagadeesh

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Objective

I am seeking a fast paced, challenging research internship in software engineering which will make use of my experience working with a variety of programming languages and frameworks both individually and in large agile teams.

Education

Worcester Polytechnic Institute (WPI), Worcester, MA

Graduation May 2026

Bachelor of Science in Computer Science, Minor in Electrical and Computer Engineering, GPA: 3.96/4.0

Relevant Courses:

Software Engineering, Introduction to Artificial Intelligence, Algorithms, Object-Oriented Design Concepts, Database Systems, Tools and Techniques and Computer Network Security, Operating Systems, Systems Programming Concepts

Skills

Programming Languages: TypeScript, JavaScript, Python, Java, SQL (Oracle & PostgreSQL), HTML, CSS, C, C++

Software Frameworks: Node.js, Next.js, React.js, Express.js, GraphQL, Flask, Tailwind CSS, Scikit learn, TensorFlow

Databases: PostgreSQL, Oracle DBMS, MongoDB, SQLite, Amazon Web Services RDS, Microsoft Azure Cosmos DB

Development Tools: AWS, Microsoft Azure, Vercel Cloud, GitHub, Docker, Linux, Unix, Oracle VirtualBox, PyTest

Applications: Unit Testing, Version Control, Python scripting, Full Stack web development, Cloud Computing, CI/CD

Work Experience

Student Assistant, WPI Department of Computer Science, Worcester MA

May 2024 – Present

- Served as an agile team coach and led 6 teams, each with 4 students, in building a full stack web application.
- Guided teams through the agile methodology by supervising daily scrum meetings and scrum retrospectives.
- Ran weekly demonstrations in which students demonstrated their application and use of the agile methodology.
- Led a recitation session in which students used Docker, AWS EC2 and RDS to deploy their flask applications.
- Provided feedback on 30 student projects each week to highlight areas of progress and potential improvement.

Legislative Intern, State Representative Adam Scanlon, Boston, MA

June 2021 – June 2022

- Provided State Representative Scanlon with legislative memos, policy recommendations, and legislative research.
- Wrote legislative testimony, a community newsletter, and attended briefings on behalf of Representative Scanlon.
- Participated in training on government standards, legislative drafting, policy analysis, and constituent services.

Project Experience

MLB Classifier, Personal Project

July 2024 – Aug 2024

- Implemented using Next.js, TypeScript, React.js, Python, Flask, Sci-Kit learn, PostgreSQL, AWS EC2 and RDS.
- Trained a neural network to classify MLB pitches using advanced metrics and achieved 92% model accuracy.
- Utilized Python Flask to create RESTful APIs to connect the machine learning model to the React.js frontend.
- Built a CI/CD pipeline to automatically build Docker containers upon a push to the project GitHub repository.
- Hosted the application on AWS EC2 and RDS and configured a custom domain name with Cloudflare DNS.

TA Companion, Personal Project

May 2024 – July 2024

- Created using Next.js, TypeScript, React.js, TailwindCSS, GraphQL, MongoDB, Auth0 and Cloudflare DNS.
- Allows users to keep track of their tasks using a kanban board, log their hours, and track their degree progress.
- Developed 25 custom React components to create a reusable, unique, and consistent theme across the application.
- Utilized Apollo GraphQL schema to prevent unnecessary fetching and to take advantage of API result caching.
- Deployed the application's user interface using Vercel cloud and hosted the database using MongoDB Atlas.
- Created a CI/CD pipeline which linted, tested, and deployed code on a push to the repository production branch.

An application for Brigham and Women's Hospital, CS 3733 – Software Engineering

Mar 2024 – May 2024

- Developed using TypeScript, ReactJS, Prisma ORM, Express.JS, Auth0 and hosted using AWS EC2 and RDS.
- Served as an Assistant Lead Developer and made 127 contributions and 8500 additions to the team repository.
- Led scrum meetings, retrospectives, technology stack presentations, and two application demonstrations.
- Developed and expanded the PostgreSQL database schema, Express.js REST APIs, and graphical map editor.
- Integrated Auth0 security features including RBAC, auto account creation and deletion, and protected APIs.
- Created and implemented entity-relationship and UML use case diagrams at the beginning of each agile sprint.

Awards and Honors

- Peer Mentor, WPI Department of Computer Science Aug 2024 – Present
- Charles O Thompson Scholar, WPI Aug 2023
- Dean's List, WPI Sept 2022 – Present