

# Avinash Vadivelu

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## EDUCATION

<b>Bachelor of Science in Computer Science</b>	Anticipated Dec 2024
<i>The University of Texas at Dallas, Richardson, TX</i>	GPA: 3.56
<b>Master of Science in Computer Science</b>	Anticipated Dec 2025
<i>The University of Texas at Dallas, Richardson, TX</i>	GPA: 3.56
<b>Relevant Coursework:</b> Discrete Math for Computing, Linear Algebra, C/C++ Programming in Unix Environment, Computer Architecture, Data Structures and Algorithm, Software Engineering, Operating Systems, Machine Learning, Database Design, Big Data Management and Analytics, Web Programming Languages, Natural Language Processing	

## TECHNICAL SKILLS

**Languages/Frameworks:** Java, C++, Python, Django, JavaScript, React, Angular, TypeScript, HTML, CSS  
**Technologies/OS:** AWS, Azure, Oracle Cloud, SQL (MySQL, PostgreSQL), MongoDB, macOS, Windows 10, Linux/Unix  
**Machine Learning/Data Analytics:** Apache (Hadoop, Spark, Hive, Kafka), Pandas, Scikit-learn, Matplotlib, Seaborn, Pytorch  
**Software Tools:** Agile, Docker, Power BI, REST, Git, VS Code, IntelliJ, Unit testing (JUnit), MSOffice, Jira, Confluence

## CERTIFICATIONS

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| • AWS Certified Cloud Practitioner                                 | Jun 2023 – Jun 2026 |
| • Oracle Cloud Infrastructure 2023 Certified Foundations Associate | Jul 2023 – Jul 2025 |

## PROJECTS

**Real-time Basketball Player Analytics Dashboard** | Django, PostgreSQL, AngularJS, REST API, CSS, HTML

- Designed and implemented a dynamic player performance dashboard utilizing Angular for the frontend and Django/REST for the backend, ensuring real-time synchronization between user-selected player data and summarized game statistics.
- Transported and organized approximately 800 lines of JSON data to a PostgreSQL database with the use of Django models.
- Optimized API integration by leveraging RxJS observables and BehaviorSubjects to ensure efficient and responsive data fetching, minimizing redundant network calls and enhancing application performance.

**Automotive OSS Survey (Toyota Tsusho Systems)** | Linux, Python, JavaScript, HTML, Git, Firebase, Agile, Jira/Confluence

- Researched the usage of Open-Source Software in the automobile industry with 5 other people.
- Reverse engineered 4 Firmwares to uncover various OSS/libraries within them and identify common vulnerabilities and exposures (CVE).
- Organized our findings and analysis on an easy-to-use dashboard/website that is hosted on Firebase.
- Participated in weekly team meetings where I was either a meeting leader or a scribe.

**Personal Portfolio** | JavaScript, HTML, CSS

- Created a dynamic and visually appealing personal portfolio website detailing my background, skills, projects, and certifications.
- Implemented a user-friendly contact form that allows external users to communicate with me directly from the website.

**Stock Predictor** | Python, Pandas, Scikit-learn, Matplotlib, NumPy

- Developed a Recurrent Neural Network (RNN) from scratch with a team of 4 that is capable of forecasting stock close prices based on historical data with an accuracy of 85%.
- Utilized Matplotlib to compare our model's prediction of the stock's close price with the actual data in the dataset
- Organized meetings and helped delegate tasks within my team on a weekly basis.