

# Avinash Vadivelu

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## EDUCATION

### Bachelor of Science in Computer Science

Anticipated Dec 2024

The University of Texas at Dallas, Richardson, TX

GPA: 3.57

Relevant Coursework: Discrete Math for Computing, Linear Algebra, C/C++ Programming in Unix Environment, Automata Theory, Computer Architecture, Data Structures and Algorithm, Software Engineering, Operating Systems, Machine Learning

## TECHNICAL SKILLS

**Programming Languages:** Java, C++, Python, JavaScript (React), HTML, CSS

**Technologies/Operating Systems:** AWS, Oracle Cloud, SQL (MySQL, PostgreSQL), macOS, Windows 10, Linux/Unix

**Machine Learning:** Pandas, Scikit-learn, Matplotlib, Seaborn, NumPy, TensorFlow

**Software Tools:** Agile, REST, Git, VS Code, IntelliJ, Unit testing (JUnit)

## PROJECTS

### 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%.
- Organized meetings and helped delegate tasks within my team on a weekly basis.

### Speech Converter | Java, REST API, JSON

- Designed a program that utilizes an API from AssemblyAI to provide a transcript of a sample audio file.
- A REST POST request is used for sending audio data to the API for processing and a JSON-formatted output including the translated text is returned.

### Student Management Database | Java, MySQL

- Formulated a program that utilizes the Java Database Connectivity API for organizing college students' general data (ID, credit hours, and fees) and to transfer collected data into a MySQL database.

### Maze Solver | Java

- Constructed an application that utilizes OOP principles to create complex mazes and finding the correct path through the maze.
- Data structures and algorithms such as the shortest path algorithms were used for the logic of finding the paths through the mazes.

### Restaurant Management System | C++

- Developed a program using the OOP concept to analyze stocks, sales, and transactions of virtual food stands located in different areas of the city of Dallas.
- Incorporates numerous data structures and algorithms for the logic of the entire system.

## PROFESSIONAL EXPERIENCE

### Instructor

Sept 2016 – June 2019

Kumon, Cypress, TX

- Managed grades and scheduled assignments for students on a database
- Refined academic performance of more than 30 students in k-12 by 15% in math and reading coursework
- Graded at least 25 students' assignments across many subjects each day and reduced customer wait time by 10%

## CERTIFICATIONS

- AWS Certified Cloud Practitioner
- Oracle Cloud Infrastructure 2023 Certified Foundations Associate
- Agile Methodology Virtual Experience Program

Jun 2023 – Jun 2026

Jul 2023 – Jul 2025