

# JALPESH VALA

valajalpesh2020@gmail.com | +91 9773278039 | LinkedIn

## Profile Summary

- Full-stack developer with **1.5+ years of experience** in building scalable and efficient web applications.
- Skilled in optimizing web applications for performance and responsiveness, focusing on **user-centric designs and improved load times**.
- Expertise in **.Net Core, Angular, ReactJs, MS SQL Server, Rabbit MQ**, and **Agile practices** to deliver high-quality projects on time and within budget.

## Technical Skill

- |            |            |           |                  |              |                    |
|------------|------------|-----------|------------------|--------------|--------------------|
| Python     | TypeScript | .Net Core | SQL              | Git          | AWS/GCP/Web Server |
| C#         | HTML       | Angular   | Entity Framework | CI/CD        | DSA                |
| JavaScript | CSS        | ReactJs   | RabbitMQ         | Azure DevOps | Data Science       |

## Work Experience

### Aquastride Technology Pvt. Ltd. – Software Engineer

Jul'23 – Present

- Enhanced system performance by designing and implementing scalable back-end architectures using Python, .Net Core, MS SQL, MQTT, and RabbitMQ, resulting in a **30% improvement** in overall system reliability.
- Designed user-friendly interfaces with HTML, CSS, Angular, and ReactJs, integrating **APIs** for seamless data rendering, and incorporating lazy loading techniques that **reduced page load times by 30%**.
- Streamlined **CI/CD workflows** using **Azure DevOps** and **Git**, automating **80% of the build, test, and deployment process**, which reduced delivery time by **10%**.
- Collaborated with cross-functional teams and followed **Agile practices** to **deliver 100% of projects on time**.

## Projects

### WaterVise2 – Water Distribution Network | .Net Core, Angular, MS SQL, RabbitMQ, Google Maps, Graph

- Developed **MQTT-based communication system** capable of managing **10,000 concurrent command** using multithreading and async operations, improving **real time interaction with RTUs by 30%**.
- Integrated **RabbitMQ** to monitor database changes and perform real-time flow calculations, enhancing **analysis accuracy by 25%**.
- Built **graph algorithms** for mapping and monitoring the water distribution network, resulting in **20% faster operational insights**.
- Designed an Angular-based front-end to visualize the water distribution network on Google Maps, utilizing **lazy loading** to improve performance by **20%**.

### Developing AI Engine for Irrigation Scheduling - Smart Irrigation System | Python, ML, DL

- Installed **7 sensors** in the field to capture real-time data, which validated the developed machine learning models.
- Developed 4 machine learning (Random Forest, SVM, GRNN, and ANN) to estimate crop evapotranspiration, with **SVM achieving 85% accuracy**.
- Conducted performance evaluations using metrics such as **RMSE** and **R<sup>2</sup>**, optimizing the models for real-world applications.

## Education

### Indian Institute of Technology Kharagpur

Aug'21 – May'23

- M.Tech – Land and Water Resources Engineering | CGPA: 8.52

### Junagadh Agricultural University

Aug'17 – May'21

- B.Tech – Agricultural Engineering | CGPA: 7.78

## Extracurricular

### Teaching Assistant: AI-ML in Agriculture | IIT Kharagpur

Jan'23 – Apr'23

- Mentored 40 students, guiding them through a **coding challenges** and **hands-on projects** to foster practical understanding of AI-ML in agriculture.
- Designed **5+ learning modules** and conducted debugging session that resolved **90% of student-reported issues**.
- Evaluated student projects and provided **personalized feedback**, enhancing project quality by **20%**.

## Certification

- Introduction to Software Engineer - Coursera
- Introduction to Cloud Computing - Coursera