# Hrishikesh Prahalad

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Highly motivated and technology-driven computer science student, passionate about innovation and research, seeking to contribute to the field by joining a challenging and dynamic workplace

## SKILLS AND CERTIFICATIONS

**Technical Skills and Coursework:** Software development, Mobile application Development (Android and IOS), Web application development, Artificial Intelligence, Machine Learning and IoT, DBMS, Data Structures, Object Oriented Programming, Docker, Cloud (AWS),
**Programming Languages:** C, C++, Java, JavaScript, Python, SQL, Visual Basics, HTML, CSS
**Certifications:** SAP Course on ABAP using ECC 6.0

## PROFESSIONAL EXPERIENCE

**SMARTBUILD AUTOMATION,** **BANGALORE, INDIA**
Software Development Intern *July 2023–July 2024*

- **Developed Smart Home Applications** for IOS and Android platforms using Swift, Flutter, and Java allowing users to connect to in-house smart home devices.
- **Integrated real-time device control and monitoring** using REST APIs, enhancing user experience and efficiency by reducing lag by 50%.
- **Implemented secure authentication systems** for user management, ensuring data privacy and protection using a token system.
- **Developed a Water Distribution application** in Android Studio for ISKON temple, enabling them to streamline the daily delivery of 30,000 gallons of water to 50+ local schools and businesses.

## EDUCATION

**CLEMSON UNIVERSITY** **CLEMSON, SC**
Master's Degree in Computer Science (GPA 3.88/4.0) *Aug 2024 – Current*
Specialization: Data Science, Software Development

**BMS COLLEGE OF ENGINEERING** **BANGALORE, INDIA**
Bachelor's Degree in Information Science and Engineering (GPA: 8.88/10.0) *Sep 2020 – July 2024*

## PROJECT AND PUBLICATION

**IEEE Publication: Exploring Digital Twins for Plant Growth Monitoring (2023 7th International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS))**

- **Conducted research on Digital Twins in agriculture,** specifically developing a framework for precision plant growth monitoring using real-time sensor data.
- **Designed and implemented a system architecture** that integrates IoT devices with AWS services (IoT Core, Lambda, TimeStream, TwinMaker, and Managed Grafana) to create and visualize a digital twin of plant conditions.
- **Analyzed and processed sensor data** (temperature, humidity, soil moisture) to generate a digital replica that mirrors plant health in real-time, enabling predictive analytics and proactive decision-making.
- **Demonstrated how Digital Twin technology enhances sustainable agriculture** by optimizing resource usage, improving monitoring efficiency, and supporting informed farming practices.
- **Evaluated system performance, scalability, and security** within the AWS environment, contributing valuable insights for advancing digital twin applications in precision agriculture.

## AWARDS

**The President's Volunteer Service Award, USA / 2018, 2019 and 2020**
Awarded by President Donald Trump in recognition of my commitment to strengthening the nation and community through volunteer service.