

# Sumanth Uppalapati

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## EDUCATION

National Institute of Technology, Karnataka (NITK)	Bachelor of Technology, Mechanical Engineering Overall GPA: 8.56/10	May 2022
Narayana E Techno School Marathahalli, Bangalore	Class 12 <sup>th</sup> Overall Percentage: 76.8%	May 2017
Narayana E Techno School RT Nagar, Bangalore	Class 10 <sup>th</sup> Overall GPA: 9.8/10	May 2015

## EXPERIENCE

**vConstruct** -Software Engineer; Pune, India June 2022 - Present

- Built python scripts to automate construction readiness assessment of 2D drawings.
- Developed a Construction Management Software by integrating Typescript, C#, and SQL. Implemented supplementary three-dimensional and two-dimensional markup features to elevate the overall user experience.
- Developed two web applications for data visualization utilizing TypeScript, Hasura, GraphQL engine and PostgreSQL database. Implemented Azure Maps visualizations to enhance the user experience and deliver insightful displays of geographical data.
- Designed a mobile application with seamless integration of a QR scanner using the Flutter framework, coupled with REST APIs for enhanced functionality and user experience.
- Developed a Model Viewer NPM package to scale construction models viewing and interactions across many applications.

**Dr. Reddy's Laboratories** -Intern; Duvvada, Visakhapatnam, India 24th May 2021 - 15th July 2021

- On-site internship at one of India's top pharmaceutical companies. The aim of the project, "Optimization of Non-routine Interventions," was to minimize manual-interventions in the vial filling machine. The tasks included collecting observational data, identifying root causes and action points, and devising a theoretical design solution.

## ACADEMIC PROJECTS

**Prediction of Weld Bead Depth in Gas Metal Arc Welding** -Final Year Project: BTech, NITK July 2021 - May 2022

- The project aims at development of a multilayer machine learning algorithm. This algorithm is designed to predict weld bead depth, taking into account input variables such as feed rate, weld velocity, and voltage. The nonlinear time dependence and longtime delays, has been carefully addressed in the algorithm's architecture to ensure reliable predictions.
- Proposed regression model's validation accuracy is evaluated by using Mean Square Error formula, which is the square of difference between actual value and predicted value divided by total length of data. The training accuracy of the model converges to 0.019 after 100 iterations, while validation accuracy is approximately 0.012.

## CERTIFICATIONS AND ACHIEVEMENTS

- Achieved an outstanding grade of AA in 10 courses and AB in 21 out of a total of 58 courses during my undergraduate studies.
- Certificate of completion in E-Yantra competition, Survey and Rescue using Pluto-X drone hosted by Indian Institute of Technology Bombay.
- Certificate of completion in JavaScript Algorithms and Data Structures and Front-End Development Libraries, offered by FreeCodeCamp an open-source certification community.
- Successfully completed a course on "**Data Visualization with Python**" from Cognitive Class recommended by Dr.Vishwanath K. P in June 2020.
- Successfully completed a course on "**Python 101 for Data Science**" from Cognitive Class recommended by Dr.Vishwanath K. P in February 2020.

## **LEADERSHIP EXPERIENCE AND ACTIVITIES**

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### **Institute of Engineers NITK- Executive Member**

**August 2019 - May 2022**

- As a club member, I proactively participated in various events covering both technical and non-technical domains. My contributions were specifically directed towards the Garage and Robotics SIGs (Special Interest Groups). While I enhanced my core domain knowledge in Garage, Robotics SIG provided me with valuable experience in interdisciplinary collaboration.
- Had the privilege to take on the role of interviewing, selecting and onboarding incoming junior members into the team. Additionally, provided mentorship for summer projects and regular guidance for their professional and academic endeavors.

### **NITK Racing Electric- Vehicle Dynamics Member**

**July 2020 - May 2022**

- Collaborated with the chassis team to optimize the suspension kinematics of our newly designed electric race car. Contributed to the refinement of hard point locations in the design while optimizing various parameters such as camber, roll, and bump within the double wishbone suspension system.
- Gained expertise in team collaboration by actively fostering open communication and conducting brainstorming sessions. Developed proficiency in real-time data analysis and honed skills in informed decision-making.

## **EXTRACURRICULAR ACTIVITIES**

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### **vConstruct Sports Meet**

**December 2023**

- Secured a gold medal in Men's Doubles Badminton at the 2023 Sports Meet.
- Achieved a silver medal in chess

### **NITK COLISEUM and FLOODLIGHT**

**April 2022**

- Secured a silver medal in the inter-branch chess tournament held during my final year of BTech

## **ADDITIONAL INFORMATION**

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**Computer Language Skills:** C, C++, JavaScript, React, Flutter, Python, HTML, CSS, C#, GraphQL, SQL, MS Excel and .NET Architecture

**Domain Skills:** Software Development, Data Visualization, Testing, Agile Methodology and Image Processing.

**Interests:** Music, Badminton and Chess.

**Languages Known:** English, Hindi and Telugu.