Pranu Pranjal

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EDUCATION

B.Tech in Mechanical Engineering | **Minor Degree in Software Engineering** **2022-2026**
National Institute of Technology Andhra Pradesh

- CGPA: 8.17

EXPERIENCE

Project Intern | **Indian Institute of Technology Dharwad** | ***Certificate*** **May 2024-July 2024**
Web Application for Toolpath Generation for Incremental Forming

- **Project Objective:** Develop a web application for generating tool-paths for incremental forming processes.
- **Technologies Used:** Python OCC, Flask, NumPy, Three.js, Plotly, HTML, CSS, JavaScript, Linux
- **Project Highlights:**
  - 3D Visualization: Developed interactive 3D model viewer for visualization using Three.js, enhancing user experience.
  - Numerical Computations: Generated toolpath from set of points and respective normal vectors on geometry using NumPy.
  - Data Analysis: Utilized Plotly for dynamic data visualization, toolpath simulation of forming processes.
  - Hosting: Linux based Virtual Machine is used to host the app.

SKILLS

- **Technical Skills**: Web Development, DevOps, DSA, OOPS
- **Programming**: C++, Java, HTML, CSS, JavaScript, Python
- **Tools**: Node.js, Express, React, MongoDB, AWS, Bootstrap, Linux, Git, GitHub, Docker, Kubernetes, Three.js, Flask, NumPy, Pandas, Anaconda

PROJECTS

Project Management and Collaboration Site | ***GitHub*** **2025**

- **Project objective**:Built a project management and collaboration platform for seamless teamwork, task tracking and feature to search for a collaborator.
- **Technologies Used**: React, Flask, MongoDB, MySQL, Docker, Kubernetes, REST APIs
- **Project Highlights**:
  - Developed a user-friendly interface with React.
  - Created a robust back-end using Flask.
  - Implemented data storage with SQL and MongoDB.
  - Containerized the app with Docker, scaled with Kubernetes.

Financial Dashboard for Real-Time Data Visualization | ***GitHub*** **2024**

- **Project Objective**: Develop a real-time dashboard to visualize financial data, including stock prices and economic indicators, providing actionable insights using various financial metrics.
- **Technologies Used**: HTML, CSS, JavaScript, Node.js, Express, React, D3.js, Plotly, WebSockets, REST APIs
- **Project Highlights**:
  - Integrated REST APIs and WebSockets for live data updates.
  - Utilized WebSockets for real-time updates, ensuring that the dashboard reflects the most current data.
  - Utilized D3.js and Plotly for interactive data visualizations.

Video conferencing Site | ***GitHub*** **2023**

- **Project Objective**: Develop a web portal for podcasting and videoconferencing, suitable for formal conferences, meetings, interviews, casual meet-ups, and conducting podcasts.
- **Technologies Used**: HTML, CSS, JavaScript, Node.js, Express, Bootstrap, agora.io.
- **Project Highlights**:
  - Enabled seamless real-time communication and collaboration through the integration of agora.io.
  - Designed a user-friendly interface using Bootstrap for an enhanced user experience.