Project Portfolio – Pranathi Mandava

This portfolio highlights key academic and internship projects that demonstrate my skills in full stack development, data analytics, and data visualization. Each project showcases my ability to work with tools such as Power BI, SQL, Python, React, and Node.js to solve real-world problems and deliver impactful solutions.

# 📊 Academic Performance Tracker

- Built a centralized academic dashboard using HTML, CSS, JavaScript, and PostgreSQL.  
- Optimized SQL queries, reducing data retrieval time by 40%.  
- Integrated Power BI visualizations for real-time performance tracking and reporting.  
- Enabled filtering, drill-down, and exportable reports that improved faculty efficiency by 25%.

# 🌦️ Handy Weather Station

- Developed an IoT-based weather station using Arduino Uno, GSM modules, and sensors.  
- Captured temperature, humidity, and atmospheric pressure, transmitting to a cloud database.  
- Visualized trends and anomalies using Python and Power BI dashboards.  
- Triggered automated alerts for extreme weather conditions, enhancing real-time monitoring.

# 🎟️ Ticketless Entry System

- Led a team in developing a secure QR-based event access system using React, Node.js, Express, and MySQL.  
- Implemented JWT authentication and real-time validation for entry.  
- Reduced manual ticketing effort by 60% and improved entry flow by 35%.  
- Conducted performance testing and presented solution at national hackathon.