1. Project: End to End Automation and CI/CD Inculcation [Amazon]

Contribution:
- Developed a new **automated testing framework** and created 10+ test packages that enhanced the team's service testing capabilities, ensuring reliability and efficiency in deployment processes.
- Architected High-Level and Low-Level Designs, creating a strategic roadmap and conducting market analysis to select **optimal software solutions** for project goals.
- Led the team to achieve streamlined continuous deployment (CD) by Q2. Successfully implemented automated integration tests, resulting in over **80% of deployments being Full CD** with 90% coverage. This initiative reduced deployment and test times from 5 days to 4 hours, exceeding the initial Q4 target.
- Unified multiple test packages and their dependencies, refactored code which significantly reduced SAS risks and simplified operations. Established effective monitoring, alert systems, and a rollback mechanism, consolidating from 10 pipelines to 4.

2. Project: European Accessibility Act Adaptation [Amazon]

Contribution:
- Collaborated with US and European teams to create a robust *automation framework* for Kindle Pub ToolstoReader, ensuring compliance with the European Accessibility Act.
- Implemented comprehensive testing strategies and team bash to stabilize HTML styles, improving navigation and enhance **user experience for diverse audiences.**

3. Project: Teamcenter (Data Management Software) End-to-End Automation [BSH]

Contribution:
- Leveraged machine learning techniques to effectively reduce test cases from 3000 to 1200. NLP to extract features from test case descriptions, converting them into token representations that capture essentials like the module, prerequisite input data, process functionalities, feature coverage, any associated dependencies and expected outcomes. Employed clustering algorithms to identify and consolidate redundant/overlapping test cases, enhancing resource efficiency.
- Identify and Review consolidated cases from each cluster, form a suite and transform them to automated scripts leveraging tokens as functionalities.
- Programmed and scripted to enable automation for development and testing processes. A complete CICD process that will be used by the team. It was later adapted my all teams.
- Acted as the solution architect and programmer, overseeing the complete Development and Operations process for the software.
- Lead the team of 14 members in India, managed requirements from 15 European module clients, collaborating globally with cross-functional teams, TRO managers, business leads and developers.

4. Project: AR/VR Enabled Office/Store Tour [BSH]

Contribution:
- Individual contributor in developing an interactive office tour that allows users to chat with a bot and navigate products virtually, utilizing Unity3D and C# programming.
- Sentiment Analysis on team feedback: Use NLP techniques to analyze text responses in feedback forms and categorize sentiments (positive, negative, neutral) to enhance user engagement.

5. Project: Meeting Room Display and Monitoring Software [BSH]

Contribution:
- Individual contributor to develop a meeting room occupancy displayer - IOT device, programming (C/C++) and integrating with Outlook for real-time scheduling.
- Created servlets to display meeting schedules on monitors for quick availability check

As part of self-learning from workshops

1. Project: Summarization, Identification and Customization of Sponsored Product Video content (Ongoing) [Gemini Workshop, Google]
- Use Gemini to analyze sponsored product videos to summarize and highlighting best-selling points using NLP and computer vision techniques. - Tagging and categorization of products in form of image frames to showcase steps and based on text prompt given by user. - Customizing the frames to user preferences and style.
2. **Project: Recommendation System for Amazon Products [MLU University, Amazon]**
Contribution: **-** Performed a comparative analysis between different Recommendation Systems models : Rank-based/Similarity-based/Matrix Factorization to see the change in recommendation. - Recommending the best Amazon products available to users based on past rating data
3. **Project: Predicting Potential Customers [MLU University, Amazon]**
Contribution: - Developed a predictive model to identify which leads were likely to convert into paid customers based on attributes and interaction details, employing data analysis and machine learning techniques.
4. **Project: Sentiment Prediction on Movie Reviews - Kaggle Competition**
Contribution: - Individual contribution in the Build a ML model to predict sentiment from dataset of movie-review pair with title, description, ratings, review text, reviewer name, etc. - Obtained 75% accuracy with just one parameter. - https://www.kaggle.com/code/iitm21f1003453/21f1003453-notebook-t22023