Learning Journal 4

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Course: SOEN 6841
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Dates Rage of activities: 23rd February 2025 to 16th March 2025
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Key Concepts Learned:

These 2 weeks I worked extensively on advancing the project proposal for the "Automated News Summarizer," specifically preparing the sections covering Feasibility Study, Solution Proposal, Project Plan (WBS), Risk Assessment, Budgeting, and Presentation Justification.

- Developed a comprehensive understanding of feasibility studies, including detailed assessment of technical, operational, and economic viability.
- Gained deeper insights into solution proposal writing, particularly articulating key features, functionalities, and the solution's potential impact.
- Created a detailed Project Plan (WBS) with specific timelines, milestones, dependencies, and resource allocation.
- Conducted an in-depth Risk Assessment, identifying potential uncertainties and developing robust mitigation strategies.
- Learned advanced budgeting techniques, categorizing costs such as development, testing, marketing, and maintenance.
- Explored Chapter 8 thoroughly, focusing on project closure procedures, deliverables, source code management, project archiving, and documenting lessons learned for continuous improvement.

Application in Real Projects:

- Conducted a thorough feasibility study for the Automated News Summarizer, analyzing technical requirements like real-time NLP and multilingual capabilities, and operational challenges such as cloud resource management.
- Developed a detailed solution proposal integrating innovative AI-driven real-time summarization, multilingual support, and bias detection functionalities to solve real-world issues such as information overload, misinformation, and accessibility barriers.

  Challenging Component:
  Proposed innovative AI-powered real-time risk monitoring techniques for continuous assessment and proactive mitigation strategies, significantly enhancing traditional project management methodologies.

Peer Interactions:

- Collaborated extensively with peers, notably Amish and Fatemeh, refining our proposal based on their insights into real-world market needs, significantly enhancing our project's practicality.
- Engaged in ongoing discussions around the technical implementation of AI features, gaining valuable perspectives on user-centric approaches.

  Challenging Component:
  A direct example was Umang's suggestion of integrating real-time sentiment analysis, which substantially altered our approach by improving user engagement through personalized and targeted news experiences.

Challenges Faced:

- Faced challenges with accurately estimating resources required for complex AI features, particularly multilingual summarization and bias detection algorithms due to data availability and model performance uncertainty.
- Specific examples included difficulty predicting development time and computational resources required for training accurate multilingual NLP models.
- Planned to address these estimation challenges by adopting agile estimation techniques such as Planning Poker, combined with expert judgment sessions and further market benchmarking to validate assumptions.

Personal Development Activities:

- Enhanced my technical skills by completing advanced online tutorials focusing on NLP methodologies, specifically exploring practical applications like bias detection and multilingual summarization.
- Attended webinars on advanced cloud-native AI deployments, further aligning my professional growth toward becoming a Senior Full-Stack Engineer.

Goals for the Next Week:

- Master agile estimation methods (Planning Poker and parametric estimation) for improved accuracy in predicting resource allocation and project timelines.
- Further advance my technical capabilities in deploying NLP solutions to cloud environments, focusing on achieving high scalability and optimal real-time performance.

  Challenging Component:
  Set strategic goals that incorporate immediate technical improvements while aligning clearly with my long-term career ambition as a Senior Full-Stack Engineer specializing in AI-driven solutions.