Internship Summary: Advancing Email Classification with AI at B\_Robots

Title: Leveraging BERT for Email Classification: An Internship Journey at B\_Robots

Intern: Mohammad Azish

Program: Bachelor in Applied Computer Science

Academic Year: 2023-2024

Location: Campus Geel, Kleinhoefstraat 4, BE-2440 Geel

Company: B\_Robots

Overview

My internship at B\_Robots, a Belgian company renowned for its business process management, AI, and NLP services, was an enriching and educational experience. Tasked with developing a pipeline for email classification using Large Language Models (LLMs), I embarked on a project that not only honed my technical skills but also offered valuable insights into real-world applications of AI and machine learning.

Key Responsibilities and Achievements

- Project Initiation: Began with the ambitious Falcon7b model, transitioning to BERT (Bidirectional Encoder Representations from Transformers) due to practical constraints.

- Data Handling: Managed extensive data gathering and preprocessing, ensuring diversity and relevance for effective model training.

- Model Training and Deployment: Successfully trained and deployed the BERT model on AWS SageMaker, creating a functional pipeline for email classification.

- API Integration: Developed and tested an API for model access, enabling efficient interaction with the deployed model.

- Problem-Solving: Overcame challenges related to model selection, data preprocessing, and API integration, demonstrating adaptability and technical proficiency.

Learning Experience

- Technical Skills: Gained hands-on experience in AI model training, cloud computing (AWS SageMaker), and API development.

- Project Management: Learned the importance of flexibility in project execution, especially when dealing with cutting-edge technologies.

- Team Collaboration: Worked closely with a dynamic team, benefiting from their expertise and support throughout the project.

Work Environment

The atmosphere at B\_Robots was incredibly welcoming and conducive to learning. The team was accommodating, always available for guidance and discussions, which greatly enhanced my learning experience. Their commitment to innovation and excellence was evident in every aspect of their work.

Personal Reflection

This internship was not just a professional engagement but a significant step in my career development. The challenges faced and the knowledge gained have been instrumental in shaping my understanding of AI and its practical applications. The experience of working with BERT and AWS SageMaker has been particularly enlightening, providing me with a solid foundation in these critical areas of technology.

Conclusion

Reflecting on my internship at B\_Robots, I realize it was more than just a professional assignment; it was a transformative journey in the realm of artificial intelligence and machine learning. The opportunity to work on a cutting-edge project like email classification using BERT, and the challenges and triumphs associated with it, have profoundly enriched my understanding and skills in this field.

The project's complexity and the need for innovative solutions pushed me to explore and learn beyond the conventional boundaries of my academic curriculum. It was a real-world application of theoretical knowledge, where each challenge was a learning opportunity and each success a milestone in my professional development.

The work environment at B\_Robots was a catalyst for growth. The team's expertise, enthusiasm, and willingness to share knowledge created an ideal learning atmosphere. Their guidance was pivotal in navigating the complexities of the project and in understanding the nuances of AI applications in business. The camaraderie and collaborative spirit within the team not only made the experience enjoyable but also instilled in me a strong sense of belonging and a deeper appreciation for teamwork in tech-driven projects.

Personally, this internship has been a significant contributor to my professional growth. It has not only equipped me with essential technical skills but also with a mindset geared towards continuous learning and innovation. The experience has bolstered my confidence in handling complex projects and has ignited a passion for pursuing a career in AI and machine learning.

In conclusion, my internship at B\_Robots stands as a pivotal chapter in my academic and professional journey. The blend of technical learning, practical application, and collaborative work culture has profoundly shaped my career aspirations and prepared me for future challenges in the tech industry. I am immensely grateful for this experience and excited about the opportunities and advancements it has opened up for me in the field of computer science.