

PFE BOOK FY 25-26

IT Project Topics Catalogue



Welcome to the team!

Who we are !



CIMPRESS IS A STRATEGICALLY-FOCUSED GROUP OF MORE THAN A DOZEN BUSINESSES, EACH OPERATING IN A LARGELY AUTONOMOUS MANNER. MASS CUSTOMIZATION IS AT THE HEART OF THE CIMPRESS STRATEGY. AT CIMPRESS, WE SEEK TO PRODUCE GOODS AND SERVICES TO MEET INDIVIDUAL CUSTOMER NEEDS WITH NEAR MASS PRODUCTION EFFICIENCY.

PIXARTPRINTING IS AN E-COMMERCE COMPANY BELONGING TO THE CIMPRESS GROUP. AT PIXARTPRINTING, WE DO MUCH MORE THAN PRINTING. WE OFFER A COMPLETE AND PROFESSIONAL SERVICE THAT AIMS TO SUPPORT OUR CUSTOMERS' COMMUNICATION PROJECTS, WHATEVER LINE OF BUSINESS THEY ARE IN.

TUNUP (TUNISIA UPLOAD & PRINT) IS A TUNISIAN COMPANY THAT HOSTS ACTIVITIES OF FOUR CIMPRESS COMPANIES BELONGING TO THE PRINTGROUP WHICH COORDINATES SEVERAL EUROPEAN UPLOAD & PRINT BUSINESSES (PIXARTPRINTING, EASYFLYER, EXAPRINT AND TRADEPRINT).

IT Project Topics Catalogue

- AI-POWERED TRANSLATION TOOL FOR CUSTOMER SUPPORT
- AUTOMATED TESTING & QUALITY EVALUATION FRAMEWORK FOR AI CHATBOT & MAILBOT



What you will do:

As part of our digital transformation and AI roadmap, we are developing an AI-powered real-time translation tool integrated with Zendesk, our customer support platform. The goal is to allow customer support agents to seamlessly communicate with customers in any language.

This is a real production-impact project, not a lab exercise.

You will design, develop, and test a custom translation system that enables:

- Automatic translation of incoming customer emails and chats into the agent's language
- Automatic translation of agent replies back to the customer's language
- Glossary-based terminology control (product names, brand vocabulary)
- Integration into Zendesk via a custom app or sidebar
- Translation quality enhancement using LLMs (post-editing, tone adaptation)

Technical environment : · **Backend:** Python / Node.js - **Frontend:** JavaScript / Zendesk App Framework (ZAF)

- **APIs:** Deepl, Open AI, or similar LLM services - **Cloud:** AWS - **Tools:** Git, REST APIs, Webhooks



Your qualifications:

- Final-year student in Software Engineering
- Strong foundations in:
 - o Software development
 - o REST APIs
 - o Web technologies (HTTP, JSON)
- Good programming level in Python, Node.JS, Javascript
- Interest in AI, Natural Language Processing, and LLMs
- Comfortable with Git and basic cloud concepts
- Analytical mindset and strong problem-solving skills
- Good documentation and communication skills in English
- Ability to work autonomously on a complex end-to-end technical project



1st Subject : AI-Powered Translation Tool for Customer Support

What We Offer :

Duration: 6 months



- **HANDS-ON EXPERIENCE IN DEVELOPING A REAL-WORLD APPLICATION FROM SCRATCH.**
- **OPPORTUNITY TO WORK WITH MODERN WEB TECHNOLOGIES IN A PROFESSIONAL ENVIRONMENT.**
- **EXPOSURE TO AGILE DEVELOPMENT METHODOLOGIES AND TOOLS.**
- **FLEXIBLE WORKING HOURS AND THE POSSIBILITY TO WORK REMOTELY.**

What you will do:

As part of our Care Technology team, you will work on a high-impact industrial project aimed at improving the reliability and quality of our production chatbot and mailbot. Your main responsibilities will include:

- Design and implement an automated quality evaluation framework for production chatbot and mailbot systems
- Build a maintainable benchmark test dataset from real customer interactions
- Implement a multi-layer evaluation engine (rule-based, embedding-based, LLM-based)
- Develop a false-positive control strategy using intent-scoped rules, multi-reference answers, and weighted scoring
- Implement automated regression detection and integrate it into the CI/CD pipeline as a quality gate
- Design a scalable test maintenance system (config-driven tests, versioning, human-in-the-loop review)
- Implement cost-aware evaluation and optimization (tiered test execution, controlled LLM usage)
- Deliver full technical documentation

Technical environment : **Programming Language:** Python - **AI Stack:** LLM APIs, Retrieval-Augmented Generation (RAG), Embeddings - **APIs:** Open AI, or similar LLM services - **DevOps:** Git, CI/CD (GitHub Actions) - **Cloud:** AWS - **Visualization:** Streamlit / Grafana / Web dashboards - **Cost Control:** Token consumption tracking, tiered evaluation strategy

Your qualifications:

- Final-year student in Software Engineering
- Strong foundations in:
 - o Software development
 - o REST APIs
 - o Web technologies (HTTP, JSON)
- Good programming level in Python
- Software testing and Automated testing of AI systems
- Interest in AI, Natural Language Processing, and LLMs
- Comfortable with Git and basic cloud concepts
- Analytical mindset and strong problem-solving skills
- Good documentation and communication skills in English
- Ability to work autonomously on a complex end-to-end technical project



2nd Subject : Automated Testing & Quality Evaluation Framework for AI Chatbot & Mailbot



TUNISIA UPLOAD & PRINT SARL - CIMPRESS COMPANY

Thank you for your attention!

We hope this PFE Book has inspired you and sparked your interest in joining our teams to take on new challenges together.

For any questions or to apply for one of the topics, feel free to reach out to us. We look forward to collaborating with you!



Stay tuned for updates!



Thank you!

Now let's start building something great.