New York University
MS in Management and Systems
Applied Project
Project Sponsor Agreement

Goals of the Program

For Participating Organizations

- Begin relationship with New York University
- Receive help from highly trained NYU graduate student
- Provide internship opportunity for NYU graduate student
- Receive assistance at no cost

For NYU Graduate Students

- Manage and implement a meaningful project aligned with their professional and educational goals
- Hands-on experience interacting with a start-up or operational small business or organization
- Earn credit toward completion of graduate degree by conducting an unpaid Applied Project under the mentorship of an NYU-SCPS professor.

Project Sponsor and Student Responsibilities

- Student prepares project planning documents
- Sponsor reviews and approves student's project plan
- Student submits project plan to faculty supervisors for approval
- Student conducts project according to plan
- At predetermined milestones sponsor reviews and approves status reports submitted by student
- Status reports reviewed and evaluated by faculty supervisors to assure student effort and project meet course requirements
- Project sponsor and student participate in periodic project reviews with NYU
- At project completion project sponsor completes evaluation forms
- Student prepares final report

Project Selection Process

- Project Evaluation Committee reviews proposed projects
- Projects are:
  - Relevant to MS degree course content
  - Significant to the participating organization
  - Substantial in terms of duration and scope
  - Challenging to the student
  - Capable of being measured against predetermined goals

The MS in Management and Systems

Concentrations in:

- Strategy and Leadership
- Systems Management
- Database Technologies
- Enterprise Risk Management

Typical Participating Student Profile

- Students selected to participate in this program meet stringent criteria
- Have completed all coursework
- High achievers with highest level GPAs and strong academic credentials
- 2-10 years of business experience
- Highly motivated for success

Sponsor and Project Information

Type of Organization	☐ For Profit ☐ Not for Profit						
Name of Organization	NYU SPS The Digital Forge						
Address	12 West 43rd Street, New York, NY						
City	New York	State	New York	Zip	10036		
Project Sponsor	First Name	Andres	Last Name	Fortino			
Title	Business owner, Clinical Associate Professor of NYU						
Phone	+1 845-242-7614						
Email	Agf249@nyu.edu						
Web Site	https://www.linkedin.com/in/afortino						
Type of Business	New York – based learning institution						

Student Name	Xiaoyun Bian
Project Title	Robot Replaceability Radar: Revolutionizing Task Automation Analysis with LLMs

Description of Project

This project seeks to refine and complete a cutting-edge tool designed to evaluate the feasibility of automating specific human tasks within various job roles, utilizing the comprehensive O*NET database from the Bureau of Labor Statistics as its foundational dataset.
In pursuit of this goal, the project will involve the development and refinement of a prototype tool, followed by an A/B technology trial to empirically test its efficacy. Documentation will be a key component, offering a detailed blueprint for replicating the tool using LLM technology and highlighting practical applications through case studies. This comprehensive approach not only aims to validate the tool's effectiveness but also to foster its adoption across various business sectors. The culmination of these efforts will be a detailed report, poised for submission as a conference paper, that encapsulates the project's findings, methodologies, and the broader implications for job automation and business process optimization.

Estimated Hours of Student Participation	260 hours

Anticipated Results

Potential solutions:

1. Advanced AI-Driven Task Analysis: The project will explore the use of sophisticated Large Language Models to dissect and analyze job descriptions, aiming to identify tasks that are most amenable to automation.
2. Optimization Algorithms for Automation Efficiency: Investigation into algorithms that can determine the optimal mix of human and robotic labor for various job roles, maximizing efficiency and cost-effectiveness.

3. Integration Strategies: The project will delve into effective strategies for integrating AI and robotic solutions into existing business processes without disrupting workflow or productivity.

Limitations:

1. Data Constraints: The effectiveness of the tool is heavily dependent on the quality and comprehensiveness of the O*NET database. Any gaps or inaccuracies in this dataset could limit the precision of the tool's recommendations.
2. Complexity of Human Tasks: Certain tasks, especially those requiring high levels of creativity, emotional intelligence, or intricate manual dexterity, might be challenging to assess for automation potential accurately.
3. Technological Limitations: The current state of AI and robotics technology may not yet be advanced enough to automate certain complex tasks identified by the tool, limiting immediate practical application.
4. Ethical and Social Considerations: The project might encounter limitations in addressing the broader ethical and social implications of job automation, such as workforce displacement and the need for retraining programs.

Knowledge and expertise student will need to be able to complete the project

1. **Project Management:** The project involves extensive planning, execution, and management, aligning with the principles and practices of project management. It requires setting clear objectives, managing timelines, allocating resources efficiently, and ensuring the project meets its goals within the set constraints.

2. **Research Process & Methodology:** This project is fundamentally a research endeavor, involving the identification of a problem, hypothesis formulation, data collection, and analysis. The use of the O*NET database and the integration of LLMs will require a methodical approach to research, testing, and validation, embodying core principles of research methodology.

3. **Data Mining and Data Warehousing:** The project will utilize data mining techniques to extract meaningful information from the O*NET database. It also involves the aspect of data warehousing, as it requires the organization, storage, and retrieval of large datasets for analysis and tool development.

4. **Managing Big Data:** The integration of Large Language Models in assessing job automation potential deals directly with big data management. The project will require handling, processing, and analyzing vast amounts of data efficiently, making it a practical application of managing big data principles and techniques.

Will the project sponsor be available for periodic meetings with NYU to review progress, address questions and concerns with the professor supervising the program? *This is a requirement for the program*	☐ Yes ☐ No

Describe the form and frequency of supervision of the student by the Project Sponsor.
I will have weekly zoom meetings with the company COO, Siri Kostanyan. I will also consult the company CTO, Prakasha Malhotra via zoom meetings when I have technical problems.

Sponsor Agreement

Students are interns, not professional consultants. NYU is not responsible for the outcomes of projects undertaken by students. Work is on a best-efforts basis; no guarantees or warranties are expressed or implied. Organization is responsible for evaluating work presented, determining its value and whether to use it or not. Some projects may require on-going management or even re-work by the Organization after the student completes their Applied Project.

Please note that in order to post an unpaid position, the internship must encompass all 6 components below:

1. The internship, even though it includes actual operation of the facilities of the employer, is similar to training which would be given in an educational environment;
2. The internship experience is for the benefit of the intern;
3. The intern does not displace regular employees, but works under close supervision of existing staff;
4. The employer that provides the training derives no immediate advantage from the activities of the intern; and on occasion its operations may actually be impeded;
5. The intern is not necessarily entitled to a job at the conclusion of the internship; and
6. The employer and the intern understand that the intern is not entitled to wages for the time spent in the internship.

I have read and agree with the information shown in the Terms and Conditions for employers contained on the following web page(s): http://www.nyu.edu/life/resources-and-services/career-development/employers/post-a-job/terms-and-conditions.html

Please complete and sign this form in the space provided below and return to the course professor via the student who will upload the document to the course drop-box. For any questions, please email the professor: Prof. Israel Moskowitz im36@nyu.edu.

I agree to all of the above

Participating Organization NYU SPS The Digital Forge Date 02/13/2024

By (signature): DocuSigned by: Siranush Kostanyan 4FD2AF47B67D456...
Project Sponsor

Printed Name: Andres Fortino

Title: Business owner, Clinical Associate Professor

Student Agreement

Students who are planning to conduct an unpaid Applied Project must read and agree to the "Important Considerations Before Accepting a Job or Internship" contained on the following web page(s): http://www.nyu.edu/life/resources-and-services/career-development/find-a-job-or-internship/important-considerations-before-accepting-a-job-or-internship.html.

Students do not register their Applied Project with the Wasserman Center.

I agree to the all of the above

Student Name (Print) __ _Xiaoyun Bian_____ Date _____02/13/2024___

Signature: _____Xiaoyun Bian_____