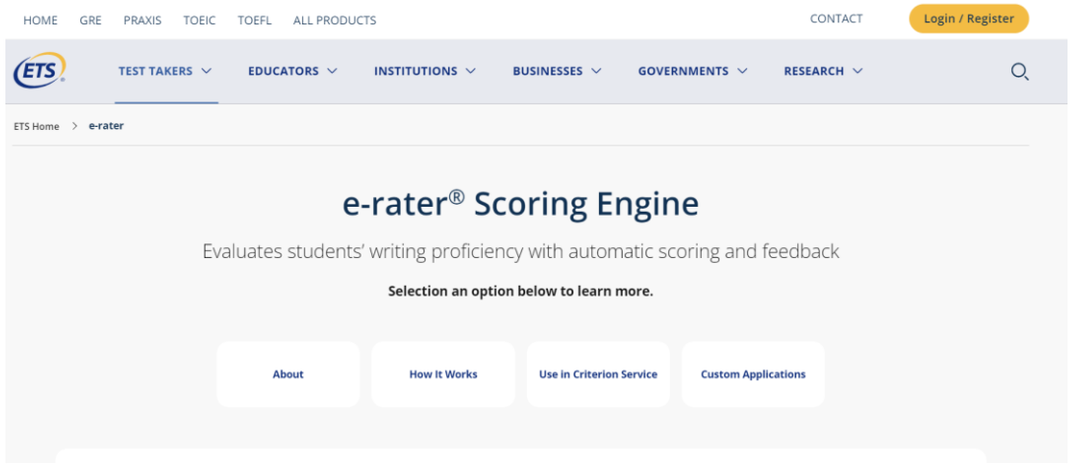
Automatic Exam Marking Project

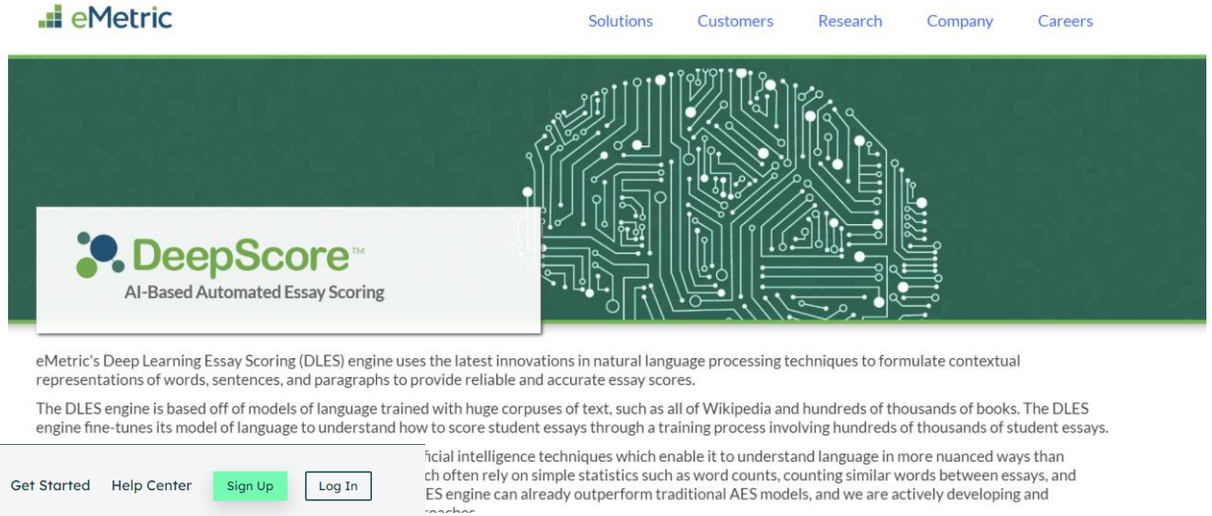
Essay Dataset Generation
&
Essay Scoring Tasks

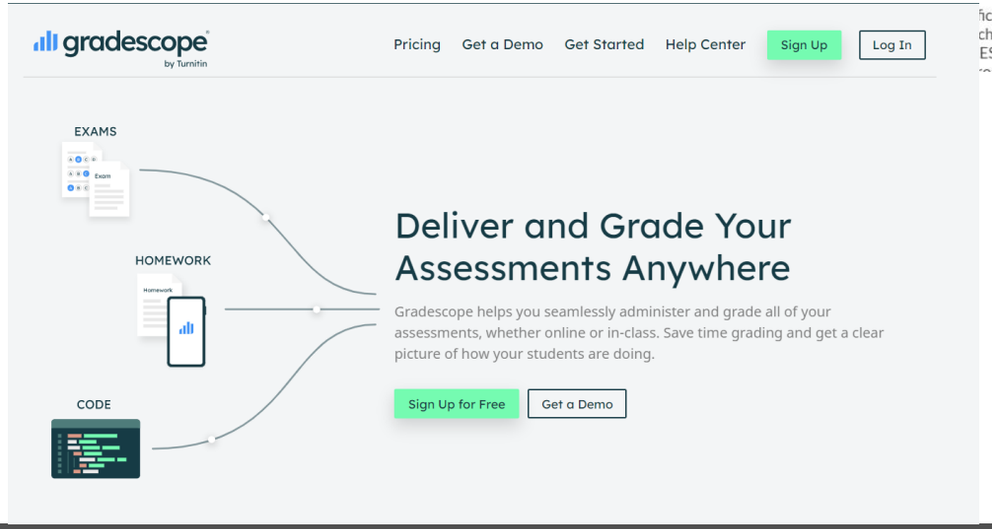
Task 1: Preparing Project Management Plan (PMP)

- Project Documentation Plan
- Project Monitoring
- Project Scope
- Project Risk Management
- Project Resource Management
- Project Stakeholder Management

Task 2: Research the Commercial Tools







Task 3: Existing GAN For Generation Essay DataSet

Available Source Code

- Research and Code Analysis

Park, Y. H., Choi, Y. S., Park, C. Y., & Lee, K. J. (2022). EssayGAN: Essay Data Augmentation Based on Generative Adversarial Networks for Automated Essay Scoring. *Applied Sciences*, *12*(12), 5803.

Task 4: Existing ML for Essay Scoring

Available Source Code

ML Approach	Name	Cited as	Source Code
Regression	**Flexible domain adaptation for automated essay scoring using correlated linear regression**	Phandi, P., Chai, K. M. A., & Ng, H. T. (2015, September). Flexible domain adaptation for automated essay scoring using correlated linear regression. In Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (pp. 431-439).	
Regression	**EASE**	Commercial	https://github.com/openedx-unsupported/ease
Neural Network	**A neural approach to automated essay scoring.**	Taghipour, K., & Ng, H. T. (2016, November). A neural approach to automated essay scoring. In Proceedings of the 2016 conference on empirical methods in natural language processing (pp. 1882-1891).	GitHub - nusnlp/nea: Neural Essay Assessor: An Automated Essay Scoring System Based on Deep Neural Networks
Neural Network	**Automated scoring for reading comprehension via in-context bert tuning.**	Fernandez, N., Ghosh, A., Liu, N., Wang, Z., Choffin, B., Baraniuk, R., & Lan, A. (2022, July). Automated scoring for reading comprehension via in-context bert tuning. In Artificial Intelligence in Education: 23rd International Conference, AIED 2022, Durham, UK, July 27–31, 2022, Proceedings, Part I (pp. 691-697). Cham: Springer International Publishing.	https://github.com/ni9elf/automated-scoring
Classification	**Effective feature integration for automated short answer scoring**	Sakaguchi, K., Heilman, M., & Madnani, N. (2015). Effective feature integration for automated short answer scoring. In Proceedings of the 2015 conference of the North American Chapter of the association for computational linguistics: Human language technologies (pp. 1049-1054).	
Classification	**A hierarchical classification approach to automated essay scoring**	McNamara, D. S., Crossley, S. A., Roscoe, R. D., Allen, L. K., & Dai, J. (2015). A hierarchical classification approach to automated essay scoring. Assessing Writing, 23, 35-59.	