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Utilization of Machine Learning to Analyze Email Urgency Levels

Project Proposal

3BSCS-1

Instructor: Professor Jeremias Celestino Esperanza

Subject: CSLEL2-18



Rationale

Faculty members receive many emails from students, colleagues, administrators, and companies. They can receive many requests, offers, and questions with varying urgency. But they all appear the same on the web page or user interface, which risks important emails buried under trivial matters.

When urgent emails remain unseen, faculty members could miss important information, deadlines, and emergencies. Progress of paperwork could slow down significantly. Unanswered emails could also cause a relationship rift between the students and the faculty. Therefore, sorting and visualizing emails by urgency is a need.

But how would they be sorted? Manually sorting emails takes time, and most online tools don't use context to differentiate what's urgent.

Large language models, or LLMs, could assist in determining which emails are urgent by comparing the phrasing of each email to a database. While it won't be the most accurate, it could assist in digging through way too many texts.



Research Problems To Be Addressed

Cluttered Email Inboxes

- Problem: Emails are usually sorted by time, displaying the latest emails first. The latest, however, doesn't mean anything important. Emails that are received early can be ignored and unprioritized.
- Research focus: Sorting emails by urgency instead of date and time and color-coding emails by degree of urgency for visualization.

Missed Deadlines

- Problem: Emails with dates for deadlines could get buried among other emails.
- Research focus: Creating a notification and color-coding system, putting emails with upcoming deadlines nearer the priority sorting, and pushing alerts to call attention.

Urgent Questions Unanswered

- Problem: Overlooking students' questions are overlooked and ignored because of volume.
- Research focus: Creating an FAQs database, allowing a quick reply from the FAQs, and sorting by question type.

Interpreting Email Urgency

- Problem: Emails need reading and interpretation to sort them correctly.
- Research focus: Using LLMs and machine learning to understand the context and tone of the email, assigning color codes based on the writing tone, and giving "sort by" options.



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