## Technical Report

May 19, 2021

This is the appendix of TSE paper "Pull Request Decision Explained: An Empirical Overall".

## 1 Results for decision making in special cases

Table 1 presents the results of how factors influence pull request decision when there exists contributor's comment or integrator's comment.

Table 1: presents the results of special cases, including  $contrib\_comment=1$  and  $inte\_comment=1$ .

| -                        | Dependent variable: merged_or_not=1 |                                   |
|--------------------------|-------------------------------------|-----------------------------------|
|                          | $\_contrib\_comment=1$              | $\underbrace{inte\_comment=1}_{}$ |
| (Intercept)              | 11.0***                             | 9.46***                           |
| same_user                | 0.50***[37.26%]                     | 0.62***[18.83%]                   |
| lifetime_minutes         | 0.65***[19.81%]                     | 0.61***[30.63%]                   |
| prior_review_num         | 1.52***[12.67%]                     | 1.47***[12.70%]                   |
| core_member              | 1.30***[ 5.30%]                     | 1.30***[ 5.66%]                   |
| num_commits              | 1.51***[10.76%]                     | 1.54***[12.75%]                   |
| other_comment            | 1.13***[ 1.53%]                     | 1.15***[ 2.35%]                   |
| ci_exists                | 1.10***[ 0.73%]                     | 1.12***[ 1.13%]                   |
| hash_tag                 | 1.12***[ 1.51%]                     | 1.12***[ 1.81%]                   |
| files_added              | 0.90***[ 0.79%]                     | 0.89***[ 1.03%]                   |
| prev_pullreqs            | 1.14***[ 0.71%]                     | 1.17***[ 1.12%]                   |
| commits_on_files_touched | 1.05***[ 0.21%]                     | 1.04***[ 0.12%]                   |
| open_pr_num              | 0.94***[ 0.05%]                     | 0.91***[ 0.12%]                   |
| account_creation_days    | 1.05***[ 0.24%]                     | 1.05***[ 0.29%]                   |
| first_pr                 | 0.93***[ 0.54%]                     | 0.95***[ 0.32%]                   |
| test_churn               | 1.09***[ 0.40%]                     | 1.09***[ 0.42%]                   |
| files_changed            | 0.96***[ 0.06%]                     | 0.96***[ 0.07%]                   |
| project_age              | 1.10***[0.27%]                      | 1.08***[ 0.19%]                   |
| reopen_or_not            | 0.97***[ 0.21%]                     | 0.97***[ 0.18%]                   |
| contrib_open             | 1.03***[ 0.07%]                     | 1.03***[ 0.09%]                   |
| stars                    | 0.80***[ 0.60%]                     | 0.81***[ 0.55%]                   |
| inte_open                | 1.14***[ 1.04%]                     | 1.12***[ 0.88%]                   |
| description length       | 1.00***[ 0.00%]                     | 1.01***[ 0.02%]                   |
| pushed delta             | 1.03***[ 0.08%]                     | 1.03***[ 0.13%]                   |
| followers                | 1.02***[ 0.04%]                     | 1.03***[ 0.05%]                   |
| contrib cons             | 1.06***[ 0.20%]                     | 1.05***[ 0.18%]                   |
| team size                | 1.04***[ 0.03%]                     | 1.06***[ 0.07%]                   |
| contrib_gender           | 0.98***[ 0.08%]                     | 0.97***[ 0.11%]                   |
| files_deleted            | 0.96***[ 0.19%]                     | 0.95***[ 0.26%]                   |
|                          | 0.99***[ 0.01%]                     | 0.99***[ 0.02%]                   |
| pr_succ_rate             | 0.96***[ 0.13%]                     | 0.98***[ 0.04%]                   |
| contrib_agree            | 0.96 [ 0.13%]                       | 0.98***[ 0.04%]                   |
| contrib_extra            | 1.00***[ 0.00%]                     | 1.01*** [ 0.00%]                  |
| contrib_neur             |                                     | 1.03***[ 0.00%]                   |
| inte_neur                | 1.05***[ 0.12%]                     |                                   |
| num_comments             | 1.03***[ 0.09%]                     | 1.17***[ 2.15%]                   |
| comment_conflict         | 1.00***[ 0.00%]                     | 1.00***[ 0.00%]                   |
| Friday_effect            | 1.02***[ 0.03%]                     | 1.01***[ 0.04%]                   |
| inte_agree               | 1.01***[ 0.00%]                     | 1.00***[ 0.00%]                   |
| inte_extra               | 1.00***[ 0.00%]                     | 1.01***[ 0.00%]                   |
| open_issue_num           | 0.98***[ 0.01%]                     | 1.01***[ 0.00%]                   |
| sloc                     | 1.02***[ 0.01%]                     | 1.02***[ 0.01%]                   |
| test_inclusion           | 1.02***[ 0.03%]                     | 1.02***[ 0.04%]                   |
| inte cons                | 1.00***[ 0.00%]                     | 1.02***[ 0.02%]                   |
| integrator_availability  | 0.99***[ 0.01%]                     | 1.00***[ 0.00%]                   |
| src_churn                | 1.06***[ 0.21%]                     | 1.06***[ 0.21%]                   |
| test_lines_per_kloc      | 1.01***[ 0.00%]                     | 1.00***[ 0.00%]                   |
| perc_contrib_pos_emo     | 1.19***[ 3.83%]                     | -                                 |
| perc_contrib_neg_emo     | 0.98***[ 0.05%]                     | =                                 |
| perc_inte_pos_emo        | -                                   | 1.24***[ 5.19%]                   |
| perc_inte_neg_emo        | -                                   | 1.03***[ 0.10%]                   |
|                          | 1,152,714                           | 809,208                           |
| Observations             |                                     |                                   |