Master Thesis Description, status: assigned, language: EN
Keywords: inner source, repository mining

Measuring Patch Flow on Github

Summary

The student will develop a model and tool for measuring the patch flow of Github.com projects. The gathered data will be further explored for specific repeating patterns or other unexpected findings.

Work Results

- Literature review
  - Inner source literature
  - Mining software code repositories (look through MSR proceedings)
  - Patch flow and patch measurement
- Research execution
  - Development of patch flow model
    - Development of the Github.com (open source) specific model for patch flow between projects
    - Estimation of needed changes for using the model in inner source endeavour
  - Implementation of a software tool
    - Development of the tool for measuring the patch flow based on Github.com API
    - Estimation of needed changes for using the tool within an enterprise context
  - Exploration of gathered data
    - Identification of repeating patterns within the data
- Research results
  - Software tool for patch flow measurement with well commented and easy to read code
  - Documentation of the model and description where the open source patch flow model differs from the inner source patch flow model
  - Presentation of findings from the data exploration phase

Supervisor

Maximilian Capraro M.Sc., maximilian.capraro@fau.de
Prof. Dr. Dirk Riehle, dirk.riehle@fau.de

Open Source Research Group

Computer Science Department
Friedrich-Alexander University

More information: http://osr.cs.fau.de/theses/resources/