

Weekly Deliverables Presentation



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1. Review Code Base

Name	Last commit message	Last commit date
..		
checkers	new model, metrics list and removed Haas	2 years ago
config	Re-revise the settings UI	2 months ago
ide	Merge branch 'refresh'	3 months ago
metrics	Merge branch 'master' into refresh	3 months ago
models	Cleaned up UserSettingsModel	3 months ago
statistics	Remove unused field in AntiCopyPasterUsageStatistics	3 months ago
utils	Merge branch 'refresh'	3 months ago
AntiCopyPasterBundle.java	Added comments and replaced placeholder URLs	3 months ago

2. Read Short Paper - Key Takeaways

- Refactoring (Extract Method)- take code fragment and put it in its own function. Replace all duplicates with a call to the new function
- Software Quality - The quality to which the produced software works for the desired purpose.
- Machine Learning - The use of algorithms to allow systems to dynamically solve problems

2. Read Short Paper

- Why?
 - Developers often copy and paste fragments. From this bugs can propagate + often refactored anyway
- Problems?
 - Large codebase/system, developer's won't understand complete workings. Makes refactoring hard
- Solutions?
 - Real-time plugin that checks when code is copy and pasted. Offers to refactor based on certain metrics

2. Read Short Paper

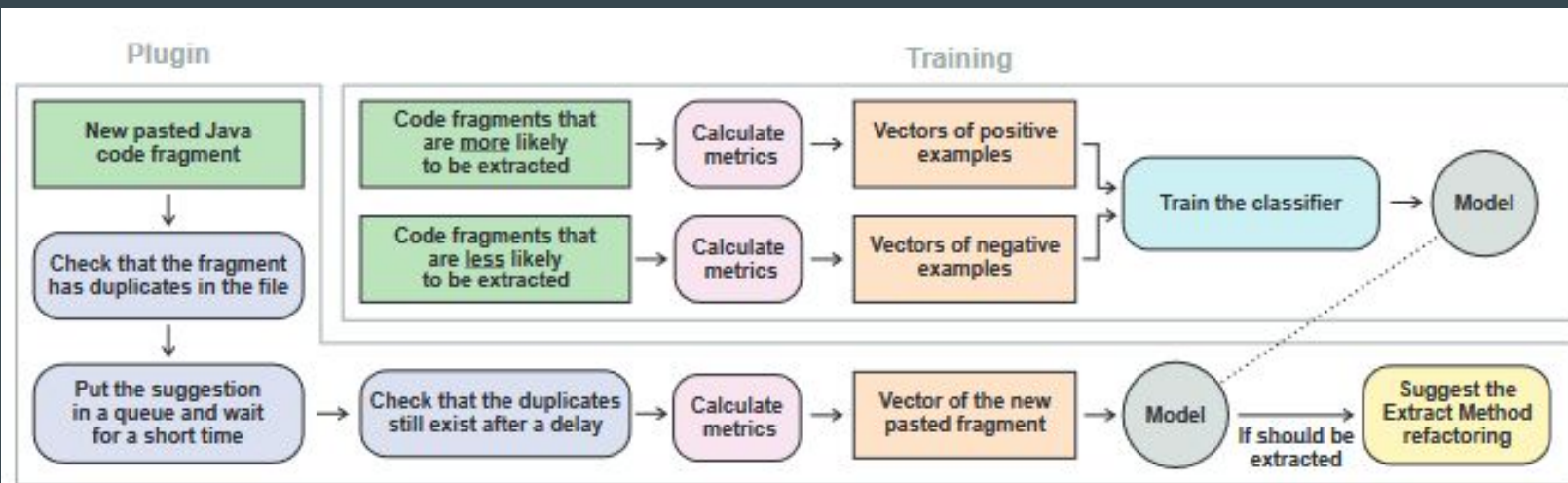


Figure 1: The pipeline of ANTI COPY PASTER. Top: training the model, bottom: using the plugin.

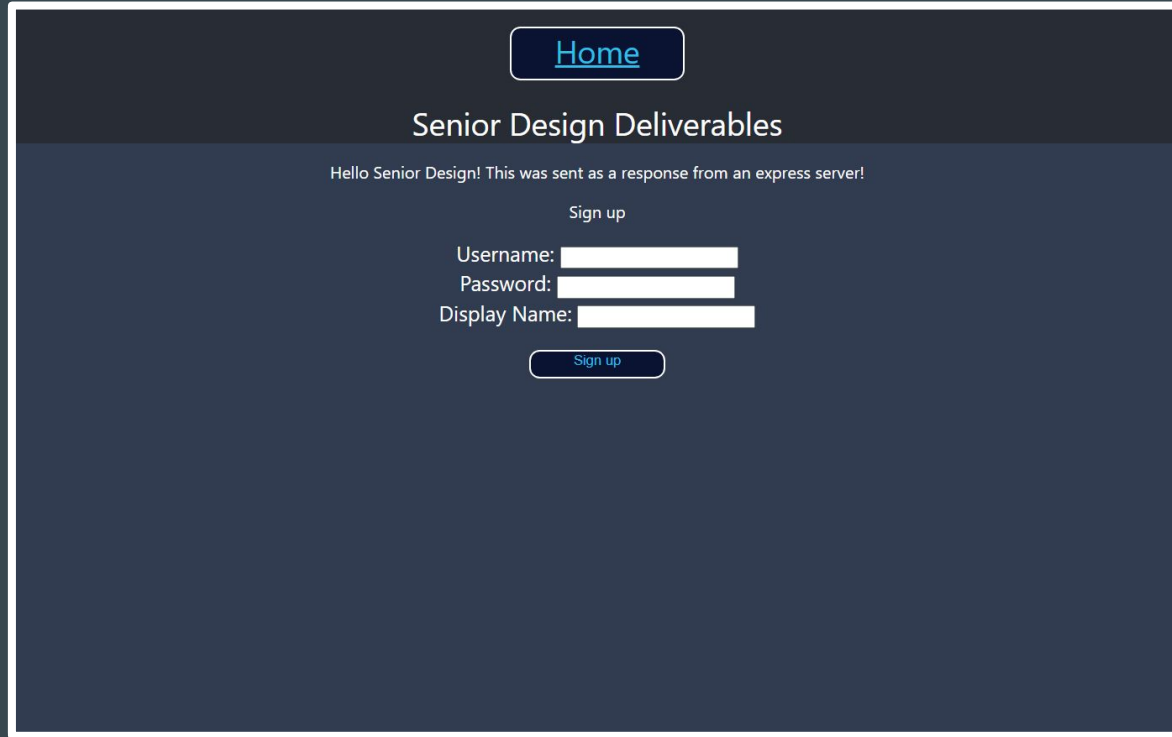
2. Read Short Paper

- Duplicate Detector
 - bag-of-words token-based clone detection
 - PSI to determine syntax and correctness
- Code Analyzer
 - Compare fragment to metrics
- Method Extractor
 - Take vector of metrics and sends it to model to determine if we should refactor based on previous data
 - “The decision of whether the given duplicate code fragment should be extracted is defined as a binary classification problem”
- Refactoring Launcher
 - Check if code can be made its own function
 - If pass, notify user about refactoring possibility
 - Refactor and notify user completion + give option to rename/confirm

3. Watch Video Presentation

- Previous group's experience
 - Issues with performance
 - Complaints about pop-ups
- Demonstration of expected performance
 - Important comparison point
 - Goal for entire project?

4. Begin Creation of Website



Home

Senior Design Deliverables

Hello Senior Design! This was sent as a response from an express server!

Sign up

Username:

Password:

Display Name:

Sign up

5. Potential Use of Pynose

- Basics
 - Detect test smells (bad coding practices) and replace them with good ones
- Has similar feature of detecting and replacing a line of code
 - Replace line of code with call to function?
- Built in delay
 - `--process-timeout=SECONDS`
- Smaller overhead?
 - Using module instead of original code may help improve performance

5. Initial Discussion

- No Semicolon like Java
 - Need to looking at coding habits to determine how much of a hindrance this can be
- PyCharm For Syntax
 - Greater examination of Python syntax most likely needed
 - PyCharm has a feature for detecting valid syntax. Should be open source, might be able to take some ideas
- “bag-of-words token-based clone detection” Priority?