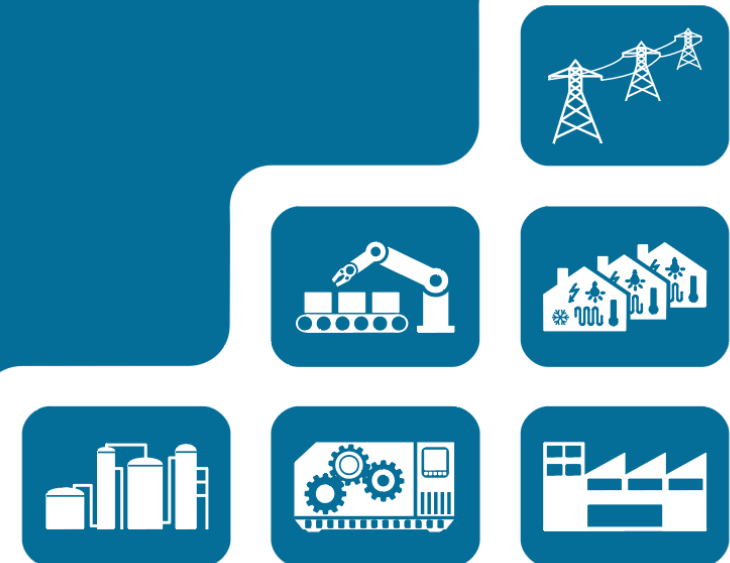


# Varflix: A Flexible Approach for Variability Mining

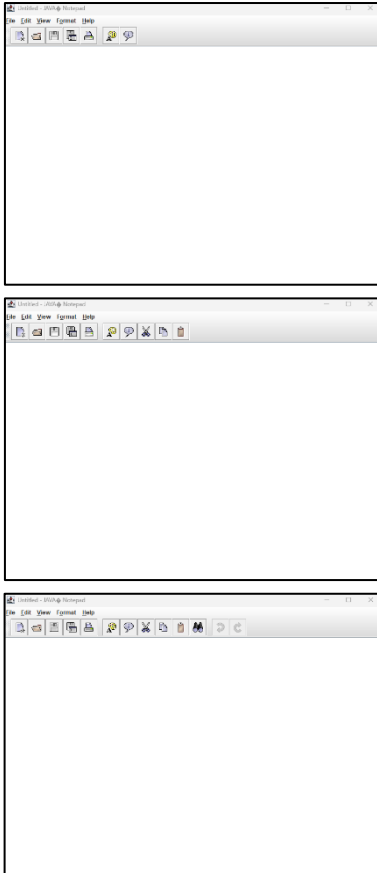


**Alexander Stummer**, Rick Rabiser  
LIT | Cyber-Physical Systems Lab  
Johannes Kepler University Linz



# Variability Mining

## Cloned Variants



## Extracted Variabilities

```
private String findword;

//for searching & finding the word
//this is a method for searching the input text from the text area
public void findD(){
    try{
        //this is an input dialog which return a string (findword)
        findword = JOptionPane.showInputDialog("Type the word to find");
        //if the JTextField in the input dialog is empty (null), then return a message dialog
        while(n.getTextArea().getText().indexOf(findword) == -1){
            //this is a message dialog which is warning the user,
            //because he didn't or forgot to enter the word
            JOptionPane.showMessageDialog(null,"Word not found!", "No match", JOptionPane.WARNING_MESSAGE);
            findword = JOptionPane.showInputDialog("Type the word to find");
        }
        //for selecting the word which the user search for it
        n.getTextArea().select(n.getTextArea().getText().indexOf(findword),
        n.getTextArea().getText().indexOf(findword) + findword.length());
    }
    catch(Exception ex){
        JOptionPane.showMessageDialog(null,"Search canceled","Aborted",JOptionPane.WARNING_MESSAGE);
    }
}

public void findNextI(){
    n.getTextArea().select(n.getTextArea().getText().indexOf(findword),(int)n.getTextArea().getText().indexOf(findword)+1),
    n.getTextArea().getText().indexOf(findword),(int)n.getTextArea().getText().indexOf(findword)+1));
}

//to cut the selected text
public void cut(){
    n.getTextArea().cut();
}

//to copy the selected text
public void copy(){
    n.getTextArea().copy();
}

//to paste the selected text
public void paste(){
    n.getTextArea().paste();
}

//for using undo & redo
UndoManager undo = new UndoManager();

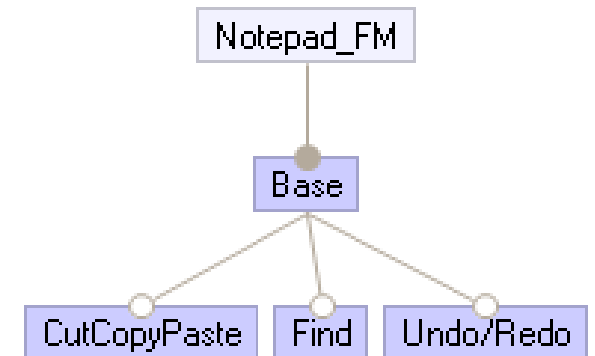
UndoAction undoAction = new UndoAction(this);

RedoAction redoAction = new RedoAction(this);

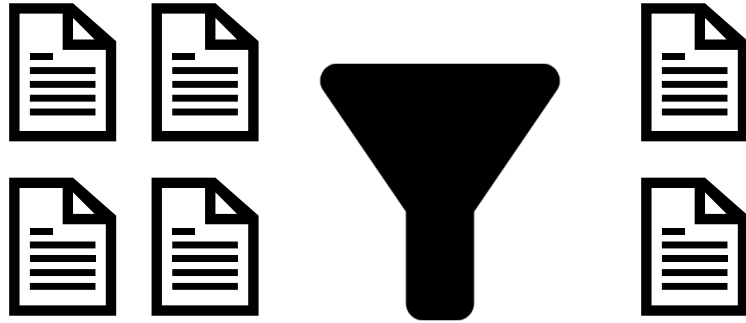
private JButton undoButton, redoButton;
```



## Variability Model



# Novelties



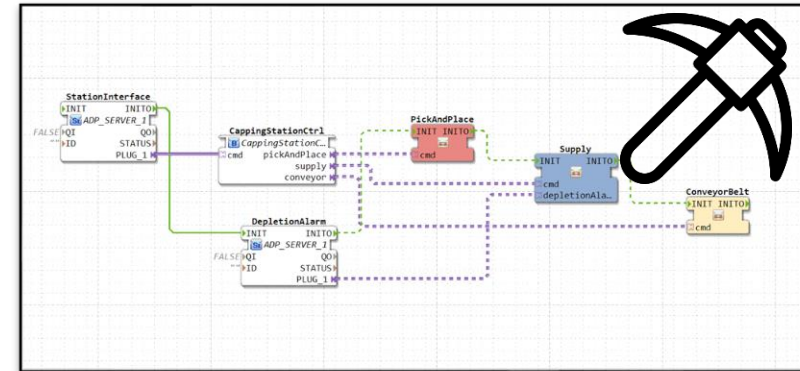
Continuous Filtering



User Involvement

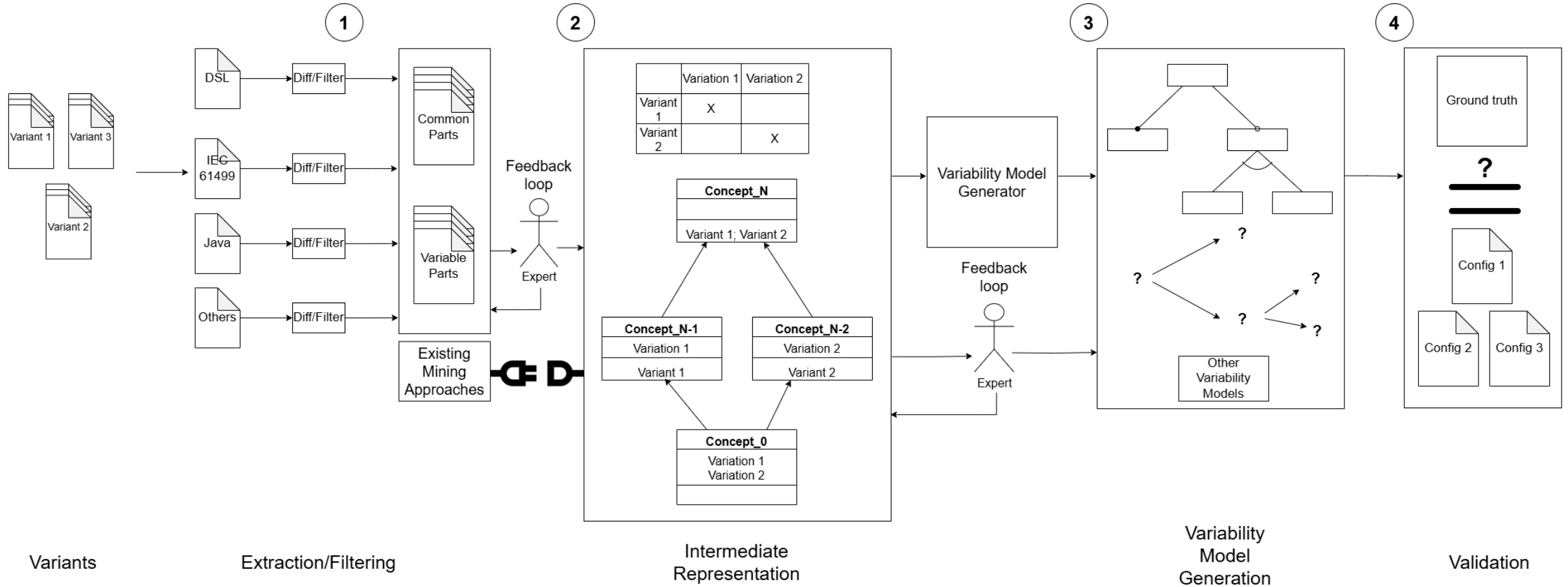


Validation

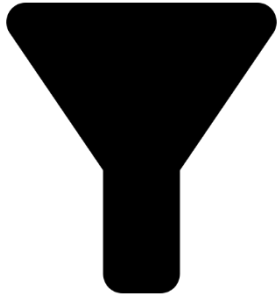


Support for mining  
graphical languages

# Varflix Architecture



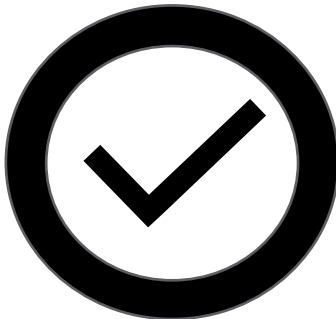
# Challenges



What should be  
filtered?



How to involve the  
user?



Correctness



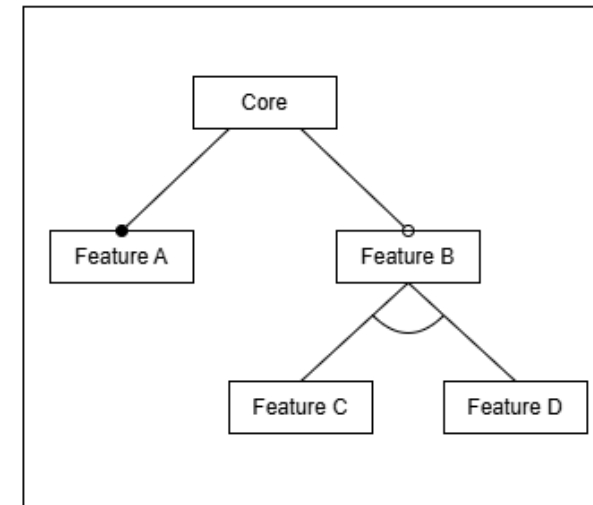
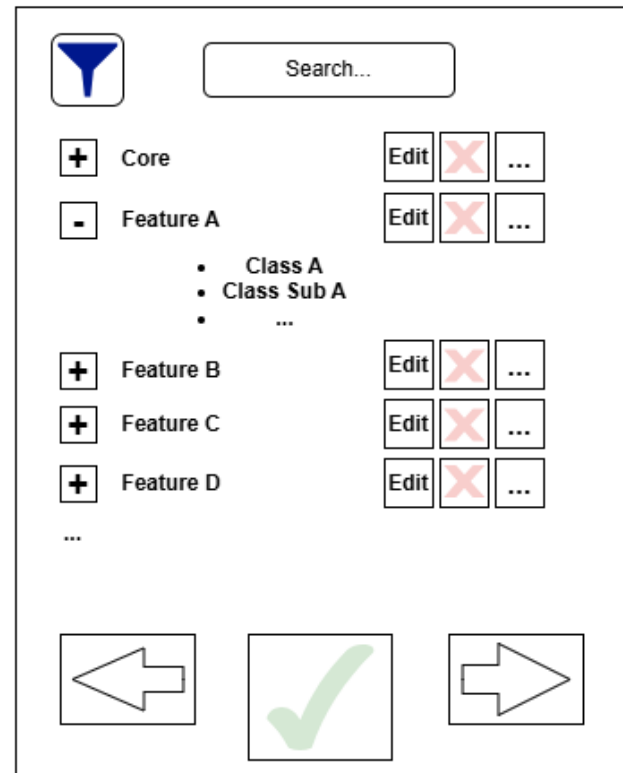
Scalability

# User Involvement

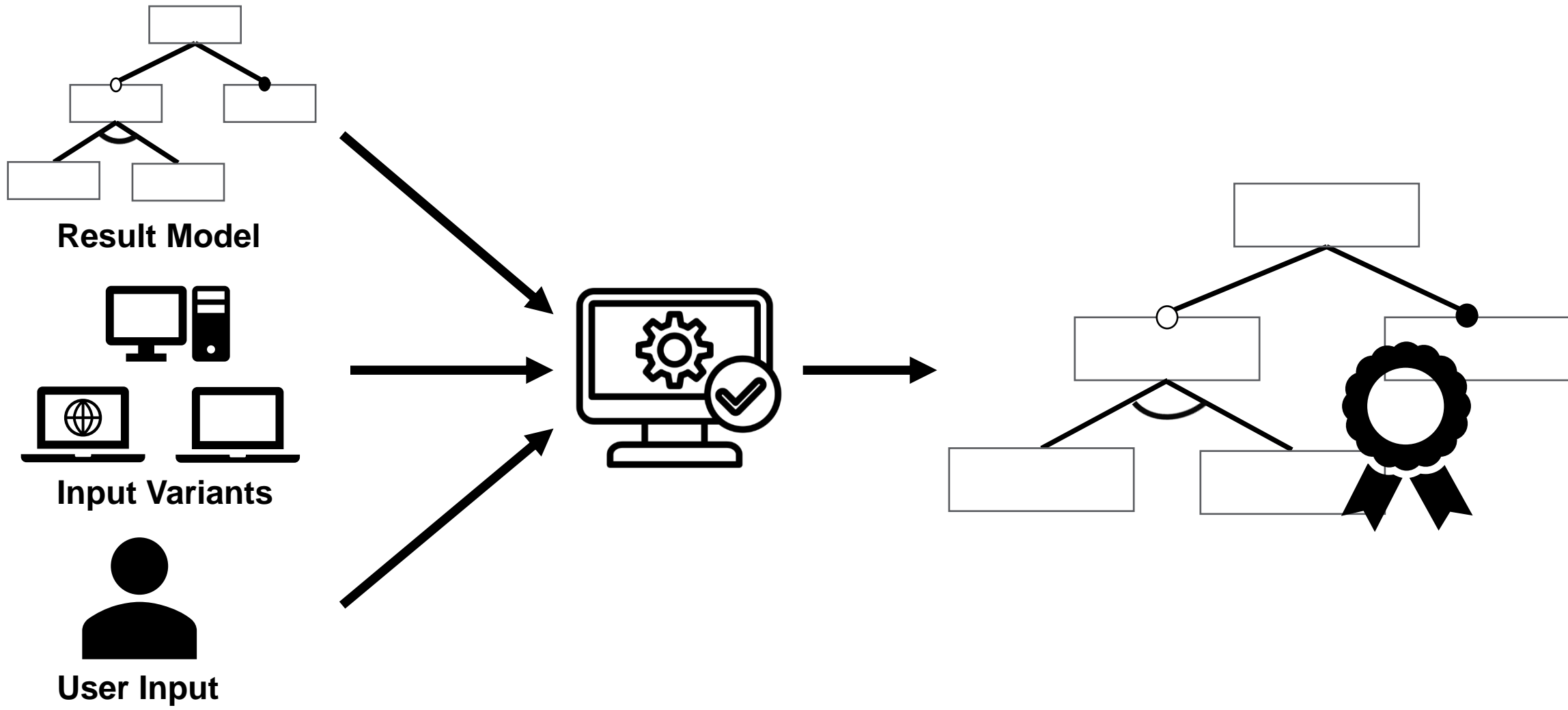


## Feedback on:

- Extraction results
- Derived constraints
- Validation



# Validation



# Future Work

- GUI to improve user involvement
- Provide extraction for more artifact types
- Validation part
- Extensive evaluation with real world applications



# Attribution

- Funnel Icon designed by Freepik:  
[https://www.freepik.com/icon/funnel\\_13310566#fromView=search&page=11&position=75&uuid=d152a239-948b-41de-8477-0f515625bc7f](https://www.freepik.com/icon/funnel_13310566#fromView=search&page=11&position=75&uuid=d152a239-948b-41de-8477-0f515625bc7f), Icon by HideMaru
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# Thank you!

Alexander Stummer | [alexander.stummer@jku.at](mailto:alexander.stummer@jku.at)  
LIT | Cyber-Physical Systems Lab  
Johannes Kepler University Linz

