Introducing PAUL:
Patch Automation Using LLMs

Michael-Raphael Kostagiannis

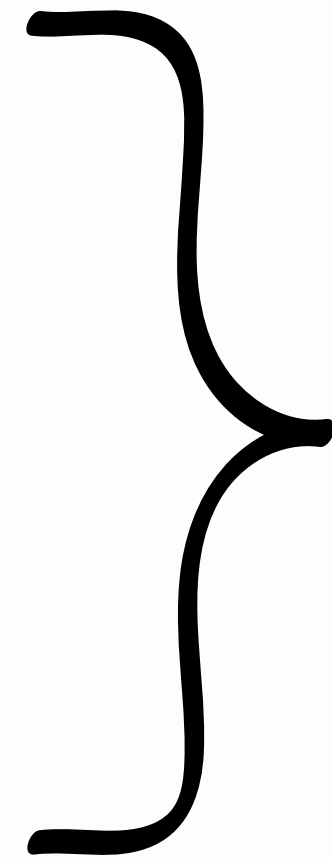Undegraduate student at DIT NKUA

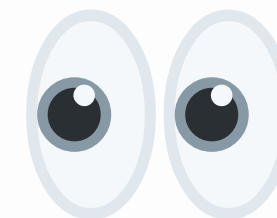(hopefully not for long)

Last time

- Automatic software repairing

- Patching

- GenProg

- AGENTLESS😺

- RepairAgent

- ChatRepair

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All have pros and cons. Still, kinda boring.
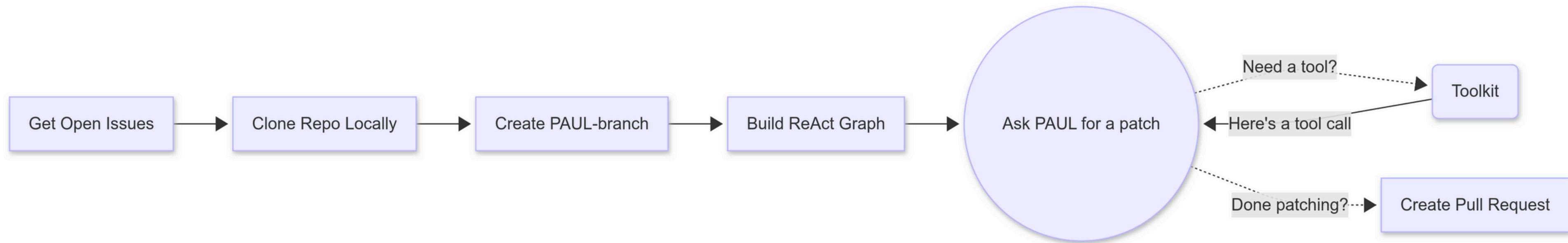Need something a little more practical.

GitHub 👀

Meet PAUL!

- **P**atch **A**utomation **U**sing **L**LMs

- Kaizen-ifies automatic program repair

- On issue open, PAUL will try to provide a patch by opening a pull request

- Needs:
  - GitHub action
  - GITHUB_TOKEN (free)
  - OPENAI_API_KEY (paid)

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PAUL workflow

Demo

Thank you!

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