anythingLLM (3 / 5)

- gemini
 - Paper 1
 - 1) which paper was authored by guo?
 - A study of static warning cascading tools by Xiuyuan Guo
 - 2) which paper discussed static analysis?
 - A study of static warning cascading tools by Xiuyuan Guo
 - 3) which paper was advised by Le, Wei?
 - A study of static warning cascading tools by Xiuyuan Guo and Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 4) which paper is tagged with the keyword "Software Engineer"?
 - Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 5) which paper was published in 2023-08?
 - There are no papers published in August of 2023.
 - Paper 2
 - 1) which paper was authored by manke?
 - Leveraging data characteristics for bug localization in deep learning programs by Ruchira Manke
 - 2) which paper discussed Theia.
 - Leveraging data characteristics for bug localization in deep learning programs by Ruchira Manke
 - 3) which paper was advised by Prabhu, Gurpur?
 - Leveraging data characteristics for bug localization in deep learning programs by Ruchira Manke
 - 4) which paper is tagged with the keyword "bug localization"?
 - Leveraging data characteristics for bug localization in deep learning programs by Ruchira Manke and Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 5) which paper was published in 2024-08?
 - There are no papers published in August of 2024.

- Paper 3
 - 1) which paper was authored by wardat?
 - Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 2) which paper discussed DeepLocalize?
 - Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 3) which paper was advised by Cohen, Myra B.?
 - Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 4) which paper is tagged with the keyword "Fault Location"?
 - Localizing and repairing faults in deep learning programs by Mohammad Ahmad Salem Wardat
 - 5) which paper was published in 2023-08?
 - There are no papers published in August of 2023.

perplexity

- gemini (takes a long time)
 - Paper 1
 - 1) which paper was authored by guo?
 - The paper titled "A study of static warning cascading tools" was authored by Xiuyuan Guo as part of a Master of Science thesis submitted to Iowa State University in 20231. The work investigates challenges in aligning static analysis warnings across different versions of software, evaluates program differencing tools (text-based, AST-based, and CFG-based), and provides empirical comparisons of their effectiveness in real-world and benchmark scenarios1.
 - 2) which paper discussed static analysis?
 - The paper "A study of static warning cascading tools" by Xiuyuan Guo (2023) extensively discusses static analysis, focusing on challenges in managing warnings across software versions1. It evaluates three program differencing techniques for cascading static analysis warnings:
 - Key Contributions
 - Practical Challenges:

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- Identifies issues like code refactoring, line-number shifts, and dead-code warnings that complicate static warning alignment1.
- Defines criteria for "successful cascading," such as matching warnings for unchanged bugs or flagging resolved warnings1.
- Tool Evaluation:
- Compares textual-based (SCALe), AST-based (GumTree), and CFG-based (Hydrogen) differencing tools1.
- Hydrogen (CFG-based) showed superior performance for matching warnings in unchanged code, while SCALe (text-based) excelled at identifying fixed warnings1.
- Empirical Analysis:
- Tested on 96 benchmark programs (SARD, Toyota) and 12 real-world projects (e.g., find, grep)1.
- Results revealed tool-specific weaknesses:
- GumTree struggled with macros and AST alignment1.
- SCALe failed with non-semantic text changes1.
- Hydrogen faced limitations in code coverage due to LLVM compilation constraints1.
- Conclusion
- The study provides actionable insights for developers to choose appropriate tools based on project needs, balancing accuracy and scalability. Tools and datasets are open-sourced to support further research
- 3) which paper was advised by Le, Wei?
 - According to the search results, the following papers were advised by Wei Le:
 - "A study of static warning cascading tools" by Xiuyuan Guo1.
 - "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat
- 4) which paper is tagged with the keyword "Software Engineer"?
 - Based on the provided search results and previous context, the LinkedIn profile of Xiuyuan Guo1 mentions the keyword "Software Engineer." This LinkedIn profile does not directly relate to a research paper but rather to Xiuyuan Guo's professional experience. It indicates Xiuyuan Guo works as a Software Engineer at Whatnot1.
 - There is a second Xiuyuan Guo who is also a software engineer at Instacart.
- 5) which paper was published in 2023-08?

- Based on the provided search results, none of the papers were published in August 2023. However, the following information is available regarding publication dates:
- "A study of static warning cascading tools" by Xiuyuan Guo was submitted to Iowa State University in 20231.
- "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat was submitted to Iowa State University in 20232.
- "An Effective Data-Driven Approach for Localizing Deep Learning Faults" by Mohammad Ahmad Salem Wardat technical report was submitted in July 20232. It is undergoing revision and will be resubmitted for the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering ESECFSE 20242.
- "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke was submitted to Iowa State University in 2024

- 1) which paper was authored by manke?
 - The paper "Leveraging data characteristics for bug localization in deep learning programs" was authored by Ruchira Manke as part of a Master of Science thesis submitted to Iowa State University in 2024. This work introduces Theia, a technique for detecting and localizing structural bugs (e.g., incorrect layer configurations, activation functions, or loss-function mismatches) in deep learning programs by leveraging dataset characteristics. Theia supports models built with Keras and PyTorch and outperforms existing tools like NeuraLint, detecting 57 out of 75 structural bugs in a benchmark of 40 real-world buggy programs1.
 - The thesis also mentions that its content is based on a paper currently under major revision at ACM Transactions on Software Engineering and Methodology (TOSEM)
- 2) which paper discussed Theia.
 - A recent study suggests that remnants of the planet Theia, which collided with Earth and led to the formation of the Moon, may be found deep within Earth's mantle123. This study, published in Nature, proposes that large low-velocity provinces (LLVPs) found deep beneath the Earth's crust are actually chunks of Theia that remained after the collision13. Simulations suggest that Theia's mantle rocks could withstand Earth's evolution due to their higher density compared to Earth's mantle1. Researchers hypothesize

that the similar iron content between the LLVPs and the Moon suggests a common origin from the collision with Theia

- 3) which paper was advised by Prabhu, Gurpur?
 - Based on the provided search results, the following paper was advised by Gurpur Prabhu:
 - "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke
- 4) which paper is tagged with the keyword "bug localization"?
 - Based on the provided search results, the following papers are tagged with the keyword "bug localization":
 - "SBugLocater: Bug Localization Based on Deep Matching and Information Retrieval"6
 - "Two-Level Information-Retrieval-Based Model for Bug Localization Based on Bug Reports"5
 - "BLAZE: Cross-Language and Cross-Project Bug Localization via..."3
 - "Supporting Cross-language Cross-project Bug Localization Using..."4
 - "Localizing and repairing faults in deep learning programs"1
 - "Leveraging data characteristics for bug localization in deep learning programs
- 5) which paper was published in 2024-08?
 - I am unable to provide an answer to your query, as there is no mention of any paper published in August 2024 in the provided search result

- 1) which paper was authored by wardat?
 - The dissertation titled "Localizing and repairing faults in deep learning programs" was authored by Mohammad Ahmad Salem Wardat as part of a Doctor of Philosophy (PhD) thesis submitted to Iowa State University in 2023. This work presents three novel techniques for debugging deep neural networks (DNNs), which were published or submitted to top-tier software engineering conferences:
 - "DeepLocalize: Fault Localization for Deep Neural Networks"
 - Published at the International Conference on Software Engineering (ICSE 2021)1.
 - Introduces a white-box fault localization approach using dynamic trace collection and statistical analysis to identify numerical bugs in DNNs.

- "DeepDiagnosis: Automatically Diagnosing Faults and Recommending Actionable Fixes in Deep Learning Programs"
- Published at ICSE 20221.
- Proposes a dynamic analysis technique to diagnose eight types of DNN failure symptoms (e.g., vanishing gradients, saturated activations) and map them to actionable fixes.
- "An Effective Data-Driven Approach for Localizing Deep Learning Faults"
- Under revision for the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2024)1.
- Leverages a data-driven method (LSTM model) to learn semantic features from DNN training dynamics for fault localization, outperforming prior approaches on mutated and real-world models.
- Key Contributions:
- First fault localization tools for DNNs (DeepLocalize, DeepDiagnosis, Deep4Deep) that address structural and training bugs.
- Benchmarks with 444 real-world and mutated DNN models for evaluating debugging tools1.
- Empirical validation showing superior accuracy and efficiency compared to state-of-the-art tools like UMLUAT, AUTOTRAINER, and DeepFD1.
- The dissertation also highlights open-science contributions, including publicly available code, datasets, and benchmarks
- 2) which paper discussed DeepLocalize?
 - The paper "Localizing and repairing faults in deep learning programs" discusses DeepLocalize1. DeepLocalize is a novel technique for debugging deep neural networks (DNN) that identifies, diagnoses, and localizes faults and provides fix suggestions for DNN models1. The approach converts the DNN into an imperative representation and uses probes to monitor its parameters and layers at training time, effectively identifying and localizing the root causes of numerical bugs
- 3) which paper was advised by Cohen, Myra B.?
 - Based on the provided search results, the dissertation "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat1 and the thesis "A study of static warning cascading tools" by Xiuyuan Guo2 were advised by committee members Myra B. Cohen.

- 4) which paper is tagged with the keyword "Fault Location"?
 - The paper "Localizing and repairing faults in deep learning programs" discusses fault localization1. This paper presents techniques like DeepLocalize, DeepDiagnosis, and Deep4Deep, which aim to identify, diagnose, and locate faults in deep neural networks1.
- 5) which paper was published in 2023-08?
 - Based on the provided search result1, the technical report "An Effective Data-Driven Approach for Localizing Deep Learning Faults" by Mohammad Ahmad Salem Wardat, Cruz, Le, and Rajan was published in 2023-08.

gpt 4.0 (takes a while to generate)

- Paper 1
 - 1) which paper was authored by guo?
 - The paper authored by Xiuyuan Guo is titled "A Study of Static Warning Cascading Tools". It is a Master's thesis submitted to the graduate faculty of Iowa State University in partial fulfillment of the requirements for the degree of Master of Science in Computer Science. The thesis was supervised by a committee including Dr. Wei Le (major professor), Dr. Simanta Mitra, and Dr. Wensheng Zhang, and was published in 2023.
 - This study focuses on the challenges and techniques for cascading static warnings across different versions of software. It evaluates three program differencing tools—SCALe (textual-based), GumTree (AST-based), and Hydrogen (CFG-based)—to determine their effectiveness in aligning warnings between software versions. The research includes both controlled experiments using benchmark programs with known bugs and real-world applications involving open-source projects. The findings highlight the strengths and weaknesses of each approach, providing insights for developers to improve static analysis practices
 - 2) which paper discussed static analysis?
 - The paper titled "A Study of Static Warning Cascading Tools" by Xiuyuan Guo extensively discusses static analysis. This Master's thesis, submitted to Iowa State University in 2023, focuses on the challenges and methodologies for cascading static warnings across different versions of software. It evaluates three program differencing tools—SCALe (textual-based), GumTree (AST-based), and Hydrogen (CFG-based)—to align warnings generated by static analysis tools between versions. The study

provides insights into the strengths and weaknesses of these approaches through controlled experiments and real-world applications, aiming to improve the efficiency of static analysis practices in software development1.

- 3) which paper was advised by Le, Wei?
 - The paper titled "A Study of Static Warning Cascading Tools" by Xiuyuan Guo was advised by Dr. Wei Le, who served as the major professor on the thesis committee. This research was submitted in partial fulfillment of the requirements for a Master of Science degree in Computer Science at Iowa State University in 2023. The study explores static analysis tools and techniques for cascading warnings across different software versions, evaluating methods such as SCALe, GumTree, and Hydrogen1.
- 4) which paper is tagged with the keyword "Software Engineer"?
 - The paper titled "Localizing and Repairing Faults in Deep Learning Programs" by Mohammad Ahmad Salem Wardat is tagged with the keyword "Software Engineer." This dissertation, submitted in 2023 for a Doctor of Philosophy degree at Iowa State University, focuses on debugging deep learning (DL) programs. It introduces techniques such as DeepLocalize, DeepDiagnosis, and Deep4Deep to identify, diagnose, and repair faults in DL models. These methods aim to enhance the reliability of DL-based software by addressing issues like structural bugs and performance inefficiencies.
- 5) which paper was published in 2023-08?
 - The paper "Localizing and Repairing Faults in Deep Learning Programs" by Mohammad Ahmad Salem Wardat was published in August 2023. This dissertation focuses on debugging deep learning programs by introducing techniques like DeepLocalize, DeepDiagnosis, and Deep4Deep to identify, diagnose, and repair faults in deep neural network models. It evaluates these methods on real-world and benchmark datasets, aiming to improve the reliability of deep learning-based software systems.
- Paper 2
 - 1) which paper was authored by manke?
 - The paper authored by Ruchira Manke is titled "Leveraging Data Characteristics for Bug Localization in Deep Learning Programs."
 This Master's thesis, submitted in 2024 to Iowa State University, focuses on detecting and localizing structural bugs in deep learning programs. The proposed technique, named Theia,

leverages dataset characteristics to identify bugs in models developed using Keras and PyTorch. Theia is designed to detect issues such as missing or redundant layers, incorrect activation functions, and suboptimal hyperparameters before the training process begins, providing actionable fixes to developers.

- 2) which paper discussed Theia.
 - The paper titled "Leveraging Data Characteristics for Bug Localization in Deep Learning Programs" by Ruchira Manke discusses Theia. This Master's thesis, submitted in 2024, introduces Theia as a tool designed to detect and localize structural bugs in deep learning (DL) programs. Theia leverages the characteristics of the training dataset to identify issues such as missing, redundant, or incorrect layers, suboptimal hyperparameters, and mismatched activation functions or loss functions. It performs these checks before the training process begins, providing actionable fixes to developers. Theia was evaluated on a benchmark of 40 real-world buggy DL programs and demonstrated superior performance compared to NeuraLint, a state-of-the-art static analysis tool for DL bug detection.
- 3) which paper was advised by Prabhu, Gurpur?
 - The paper titled "Leveraging Data Characteristics for Bug Localization in Deep Learning Programs" by Ruchira Manke was advised by Gurpur Prabhu, who served as a committee member. This Master's thesis, submitted in 2024 at Iowa State University, introduces Theia, a tool designed to detect and localize structural bugs in deep learning programs by leveraging dataset characteristics. The study evaluates Theia on real-world buggy programs and demonstrates its effectiveness compared to existing tools like NeuraLint.
- 4) which paper is tagged with the keyword "bug localization"?
 - The paper titled "Leveraging Data Characteristics for Bug Localization in Deep Learning Programs" by Ruchira Manke is tagged with the keyword "bug localization." This Master's thesis, submitted in 2024, introduces a tool called Theia that leverages dataset characteristics to detect and localize structural bugs in deep learning programs. It focuses on identifying issues such as missing, redundant, or incorrect layers, suboptimal hyperparameters, and mismatched activation functions or loss functions before the training process begins. The study evaluates Theia's effectiveness compared to existing tools like NeuraLint

and demonstrates its superior performance in localizing structural bugs in real-world buggy deep learning models.

- 5) which paper was published in 2024-08?
 - None of the search results explicitly mention a paper published in August 2024 that matches the context of your previous queries.
 The search results primarily list trending or top-downloaded papers from various journals during that time but do not provide specific details about papers authored by individuals like Guo, Manke, or Wardat. If you have additional details or context, I can refine the search further.

- 1) which paper was authored by wardat?
 - The paper authored by Mohammad Ahmad Salem Wardat is titled "Localizing and Repairing Faults in Deep Learning Programs." This dissertation, submitted in 2023 as part of the requirements for a Doctor of Philosophy degree at Iowa State University, introduces three novel techniques for debugging deep neural networks (DNNs):
 - DeepLocalize A fault localization method that uses a white-box approach to identify and localize numerical bugs in DNNs.
 - DeepDiagnosis A dynamic analysis technique for diagnosing faults and recommending actionable fixes for structural bugs in DNN programs.
 - Deep4Deep A data-driven approach that leverages semantic features to detect and diagnose faults in DNN models.
 - The research evaluates these methods on real-world and benchmark datasets, demonstrating their effectiveness in improving the reliability of DNN-based software systems.
- 2) which paper discussed DeepLocalize?
 - Programs" by Mohammad Ahmad Salem Wardat discusses
 DeepLocalize. This dissertation introduces DeepLocalize as a
 white-box fault localization technique for deep neural networks
 (DNNs). It dynamically analyzes training traces to identify
 numerical errors and localize faults to specific layers or
 hyperparameters. The approach involves converting the DNN into
 an imperative representation and using probes to monitor
 variables such as weights and gradients during training.
 DeepLocalize was evaluated on a benchmark of 40 buggy models,
 successfully detecting faults in 34 cases and localizing root

causes in 21 cases, outperforming existing debugging methods 134.

- 3) which paper was advised by Cohen, Myra B.?
 - The paper titled "Localizing and Repairing Faults in Deep Learning Programs" by Mohammad Ahmad Salem Wardat was advised by Myra B. Cohen, along with other committee members. This dissertation, submitted in 2023 for a Doctor of Philosophy degree at Iowa State University, introduces techniques such as DeepLocalize, DeepDiagnosis, and Deep4Deep to identify, diagnose, and repair faults in deep neural network models. It evaluates these methods on real-world and benchmark datasets to improve the reliability of deep learning-based software systems.
- 4) which paper is tagged with the keyword "Fault Location"?
 - Based on the provided search results, none of the papers explicitly mention being tagged with the keyword "Fault Location" in the context of your previous queries. However, several papers discuss fault location methods in power systems, such as:
 - "Fault Location in Distribution Network by Solving the Optimization Problem" (2023)1.
 - "A Comprehensive Review of Fault Location Methods for Distribution Power System" (2024-10-22)3.
 - "Fault Location and Detection Techniques in Power Distribution Systems with Distributed Generation: A Review" (2024-10-22)4.
 - If you are looking for a specific paper outside this context, providing more details could help refine the search
- 5) which paper was published in 2023-08?
 - The paper titled "Localizing and Repairing Faults in Deep Learning Programs" by Mohammad Ahmad Salem Wardat was published in August 2023. This dissertation introduces techniques such as DeepLocalize, DeepDiagnosis, and Deep4Deep to identify, diagnose, and repair faults in deep neural networks, improving the reliability of deep learning-based software systems.

- claude 3.5 sonnet

- Paper 1
 - 1) which paper was authored by guo?
 - A study titled "A study of static warning cascading tools" was authored by Xiuyuan Guo as a Master of Science thesis at Iowa State University in 20231. The thesis examines three different

techniques for cascading static code analysis warnings between different versions of software:

- Key Components
- Research Committee
- Wei Le (Major Professor)
- Simanta Mitra
- Wensheng Zhang
- Research Focus
- The thesis investigates three main warning cascading approaches:
- Textual based diff tool (SCALe)
- AST based diff tool (GumTree)
- CFG based diff tool (MVICFG)
- Evaluation
- The research evaluated these tools using:
- 96 pairs of benchmark programs with known ground-truth bugs
- 12 pairs of real-world open-source projects including make, find, grep, and coreutils
- The study found that each tool had different strengths and weaknesses in cascading warnings between software versions, with Hydrogen showing advantages for same-bug detection and SCALe performing better for bug-fix detection
- 2) which paper discussed static analysis?
 - Guo's thesis "A study of static warning cascading tools" extensively discussed static analysis, focusing on several key aspects:
 - Static Analysis Tools
 - The research examined five major static analysis tools:
 - GCC
 - Clang
 - Cppcheck
 - Rosecheckers
 - CodeSonar1
 - Warning Cascading Challenges
 - Key Issues
 - The study identified several challenges with static analysis warnings:
 - Tools can report overwhelming numbers of warnings, many being false positives1
 - New software versions can generate warnings only relevant to old versions1
 - Inspecting these warnings is time-consuming and can hinder finding new bugs1

- Research Methodology
- The study evaluated warning cascading using:
- Three different techniques: textual-based diff (SCALe), AST-based diff (GumTree), and CFG-based diff (MVICFG)1
- 96 pairs of benchmark programs with known bugs
- 12 pairs of real-world open-source projects1
- Key Findings
- Tool Performance
- Hydrogen showed advantages for detecting same bugs across versions
- SCALe performed better at identifying bug fixes
- GumTree served as a middle ground between the two approaches1
- The research concluded that each tool had distinct strengths and weaknesses in handling static analysis warnings between software versions, with no single tool being superior in all scenarios
- 3) which paper was advised by Le, Wei?
 - "A study of static warning cascading tools" was advised by Wei Le as the Major Professor for Xiuyuan Guo's Master of Science thesis at Iowa State University in 20231. The thesis was completed under a program of study committee that included:
 - Committee Members
 - Wei Le (Major Professor)
 - Simanta Mitra
 - Wensheng Zhang1
 - Research Focus
 - Under Le's advisement, the thesis investigated three different warning cascading approaches for static code analysis:
 - Textual based diff tool (SCALe)
 - AST based diff tool (GumTree)
 - CFG based diff tool (MVICFG)1
 - The research evaluated these tools using benchmark programs and real-world open-source projects to understand their effectiveness in cascading static analysis warnings between software versions.
- 4) which paper is tagged with the keyword "Software Engineer"?
 - None of the papers in the search results are explicitly tagged with the keyword "Software Engineer". While the papers discuss software engineering topics and were published in software engineering venues (like ICSE), there is no explicit keyword tagging system shown in the search results.

- The papers discussed are:
- Wardat's dissertation on "Localizing and repairing faults in deep learning programs"
- Guo's thesis on "A study of static warning cascading tools"
- Manke's thesis on "Leveraging data characteristics for bug localization in deep learning programs"
- While these works are in the field of software engineering, none are specifically tagged with "Software Engineer" as a keyword.
- 5) which paper was published in 2023-08?
 - "An Effective Data-Driven Approach for Localizing Deep Learning Faults" by Wardat, Cruz, Le, and Rajan was published as an arXiv preprint in July 2023 (arXiv:2307.08947)191.
 - Research Focus
 - The paper presents Deep4Deep (D4D), a data-driven approach for:
 - Automatically extracting training datasets from programs
 - Using dynamic and static analysis to detect bugs in deep learning software
 - Learning semantic features from DNN models to detect and diagnose faults
 - Key Innovations
 - Analysis Methods
 - Uses dynamic analysis to examine parameter values during training
 - Extracts static features from models in ONNX format
 - Automatically learns relationships between root causes and symptoms
 - Evaluation
 - The approach was evaluated using:
 - Benchmarks with real-world models
 - Mutated models generated for testing
 - Comparison against prior fault localization approaches
 - The results showed that Deep4Deep outperformed previous work in terms of accuracy, precision and recall for mutated models, while achieving comparable results on real-world models.

- 1) which paper was authored by manke?
- 2) which paper discussed Theia.
- 3) which paper was advised by Prabhu, Gurpur?
- 4) which paper is tagged with the keyword "bug localization"?
- 5) which paper was published in 2024-08?"
- Paper 3

- 1) which paper was authored by wardat?
- 2) which paper discussed DeepLocalize?
- 3) which paper was advised by Cohen, Myra B.?
- 4) which paper is tagged with the keyword "Fault Location"?
- 5) which paper was published in 2023-08?"

Grok-2 (takes a while)

- Paper 1
 - 1) which paper was authored by guo?
 - The paper authored by Xiuyuan Guo is titled "A study of static warning cascading tools"
 - 2) which paper discussed static analysis?
 - The paper that discussed static analysis is "A study of static warning cascading tools" by Xiuyuan Guo
 - 3) which paper was advised by Le, Wei?
 - The paper that was advised by Wei Le is "A study of static warning cascading tools" by Xiuyuan Guo
 - 4) which paper is tagged with the keyword "Software Engineer"?
 - The paper "A study of static warning cascading tools" by Xiuyuan Guo is tagged with the keyword "Software Engineer" as it is a thesis submitted to the graduate faculty in partial fulfillment of the requirements for the degree of Master of Science in Computer Science, with Wei Le as the Major Professor, indicating its relevance to software engineering practices and methodologies1.
 - 5) which paper was published in 2023-08?
 - The paper "An Effective Data-Driven Approach for Localizing Deep Learning Faults" by Mohammad Ahmad Salem Wardat, Benjamin D. Cruz, Wei Le, and Hridesh Rajan was published in August 20231.
- Paper 2
 - 1) which paper was authored by manke?
 - The paper authored by Ruchira Manke is titled "Leveraging data characteristics for bug localization in deep learning programs".
 - 2) which paper discussed Theia.
 - The paper that discussed Theia is "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke.
 - 3) which paper was advised by Prabhu, Gurpur?
 - The paper "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke was advised by Gurpur Prabhu.

- 4) which paper is tagged with the keyword "bug localization"?
 - The paper "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke is tagged with the keyword "bug localization".
- 5) which paper was published in 2024-08?"
 - The paper "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke was published in August 2024.

Paper 3

- 1) which paper was authored by wardat?
 - The paper authored by Mohammad Ahmad Salem Wardat is "An Effective Data-Driven Approach for Localizing Deep Learning Faults".
- 2) which paper discussed DeepLocalize?
 - The paper that discussed DeepLocalize is "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat.
- 3) which paper was advised by Cohen, Myra B.?
 - The paper "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat was advised by Myra B. Cohen.
- 4) which paper is tagged with the keyword "Fault Location"?
 - The paper "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat is tagged with the keyword "Fault Location".
- 5) which paper was published in 2023-08?
 - The paper "An Effective Data-Driven Approach for Localizing Deep Learning Faults" by Mohammad Ahmad Salem Wardat, Benjamin D. Cruz, Wei Le, and Hridesh Rajan was published in August 2023.

chatgpt.com (5 / 5)

- Free model
 - Paper 1
 - 1) which paper was authored by guo?
 - The paper authored by Guo is titled "A study of static warning cascading tools" by Xiuyuan Guo

- 2) which paper discussed static analysis?
 - The paper "A study of static warning cascading tools" by Xiuyuan Guo discusses static analysis. It focuses on the challenges of cascading warnings generated by static analysis tools and evaluates different program differencing techniques for improving warning alignment across software versions
- 3) which paper was advised by Le, Wei?
 - The paper "A study of static warning cascading tools" by Xiuyuan Guo was advised by Wei Le, who served as the major professor
- 4) which paper is tagged with the keyword "Software Engineer"?
 - The paper "A study of static warning cascading tools" by Xiuyuan Guo is tagged with the keyword "Software Engineer"
- 5) which paper was published in 2023-08?
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- 1) which paper was authored by manke?
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- 2) which paper discussed Theia.
 - The paper "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke discusses Theia
- 3) which paper was advised by Prabhu, Gurpur?
 - The paper "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke was advised by Gurpur Prabhu
- 4) which paper is tagged with the keyword "bug localization"?
 - The paper "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat is tagged with the keyword "bug localization"
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 The paper "Leveraging data characteristics for bug localization in deep learning programs" by Ruchira Manke was published in August 2024

- Paper 3

- 1) which paper was authored by wardat?
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- 2) which paper discussed DeepLocalize?
 - The paper "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat discusses DeepLocalize
- 3) which paper was advised by Cohen, Myra B.?
 - The paper "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat was advised by Myra B. Cohen
- 4) which paper is tagged with the keyword "Fault Location"?
 - The paper "Localizing and repairing faults in deep learning programs" by Mohammad Ahmad Salem Wardat is tagged with the keyword "Fault Location"
- 5) which paper was published in 2023-08?

DeepSeek.com (model was unavailable)

- DeepThink R1

- Paper 1
 - 1) which paper was authored by guo?
 - 2) which paper discussed static analysis?
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- Paper 2
 - 1) which paper was authored by manke?
 - 2) which paper discussed Theia.
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- Paper 3
 - 1) which paper was authored by wardat?

- 2) which paper discussed DeepLocalize?
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