Dr Michael Stewart

Dr Michael Stewart

Research Fellow

Theme 1

Michael is passionate about natural language processing, knowledge discovery, data visualisation, and web development.

Michael Stewart received his PhD from the University of Western Australia in 2020. His research focuses on information extraction from unstructured technical text, knowledge graph construction, entity typing and lexical normalisation.

Michaels work is published in several highly regarded venues, including Knowledge Representation and Reasoning, Empirical Methods in Natural Language Processing, and the International Conference on Data Mining. He was awarded the Research & Innovation Project of the Year-Postgraduate Tertiary Student Award at the 28th WAITTA INCITE Awards. As part of a team led by Dr Wei Liu, he was the first prize winner of the ICDM 2019 Knowledge Graph Contest.

Publications

- CySpider: A Neural Semantic Parsing Corpus with Baseline Models for Property Graphs (...) —

Conference Publishing

Ziyu Zhao

Authors: Ziyu Zhao, Wei Liu, Tim French & Michael Stewart
2023-11-27

- A Whole-of-Organisation Approach for Reliability Analytics (...) —

Book Chapter

Prof Melinda Hodkiewicz

Authors: Melinda Hodkiewicz, Tyler Bikaun, Michael Stewart
2023-02-16

- SConE: Simplified cone embeddings with symbolic operators for complex logical queries (...) —

Conference Publishing

Chau Nguyen

Authors: Chau Nguyen, Tim French, Wei Liu, Michael Stewart
2023-07-14

- RelOps-A Whole-of-Organisation Approach for Reliability Analytics (...) —

Book Chapter

Prof Melinda Hodkiewicz

Authors: Melinda Hodkiewicz, Tyler Bikaun, Michael Stewart
2023-02-16

- CylE: Cylinder Embeddings for Multi-hop Reasoning over Knowledge Graphs (...) —

Conference Publishing

Chau Nguyen

Authors: Chau Nguyen, Tim French, Wei Liu, Michael Stewart
2023-05-02

- Using Context-Free Grammar to Generate Synthetic Technical Short Texts (...) —

Conference Publishing

Tyler Bikaun

Authors: Tyler Bikaun, Michael Stewart, Melinda Hodkiewicz
2022-12-03

- MWO2KG and Echidna: Constructing and exploring knowledge graphs from maintenance data (...) —

Journal Article

Dr Michael Stewart

Authors: Stewart M, Hodkiewicz M, Liu W, French T
2022-11-05
- E2EET: from pipeline to end-to-end entity typing via transformer-based embeddings (...) —

Journal Article

Dr Michael Stewart

Authors: Michael Stewart, Wei Liu
2021-11-30
- Cleaning and visualization of unstructured text in safety records (...) —

Conference Publishing

Dr Michael Stewart

Authors: Michael Stewart1, Wei Liu1, Rachel Cardell-Oliver1 And Mark Griffin
2020-11-01
- Seq2KG: An End-to-End Neural Model for Domain Agnostic Knowledge Graph (not Text Graph) Construction from Text (...) —

Conference Publishing

Dr Michael Stewart

Authors: Michael Stewart, Wei Liu
2020-09-01

Presentations

- Large Language Models for Failure Mode Classification: An Investigation (...) —

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2023-11-17

- Unlocking knowledge in Maintenance Work Orders with Echidna and Redcoat (...) —

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Theme 1
2021-04-13

- Unlocking knowledge in Maintenance Workorders (...) —

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Theme 1
2020-09-11

- Tutorial at AJCAI 2022 - A Practical Guide to Knowledge Graph Construction from Technical Short Text (...) —

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Theme 1
2022-12-05

- Tutorial at AJCAI 2022 (...) —

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2022-12-05

- QUARRY: A Graph Model for Queryable Association Rules (...) —

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Theme 1
2022-10-07

- A technical language processing-based solution to automatically calculating lubrication-related costs from maintenance work orders - presentation at PHM 2021, TLP Workshop (...) —

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2021-11-29

- Redcoat: A Collaborative Annotation Tool Supporting Technical Language Processing Research (...) —

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Theme 1
2021-04-13

- Cleaning and Visualization of Unstructured Text in Safety Records ESREL 2020 PSAM 15 (...) —

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Theme 1
2020-11-04

- Unlocking knowledge buried within technical records (...) —

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Research Fellow

Theme 1
2020-06-25

- [NLP Workshop](...) (...) —

[Dr Michael Stewart](...)
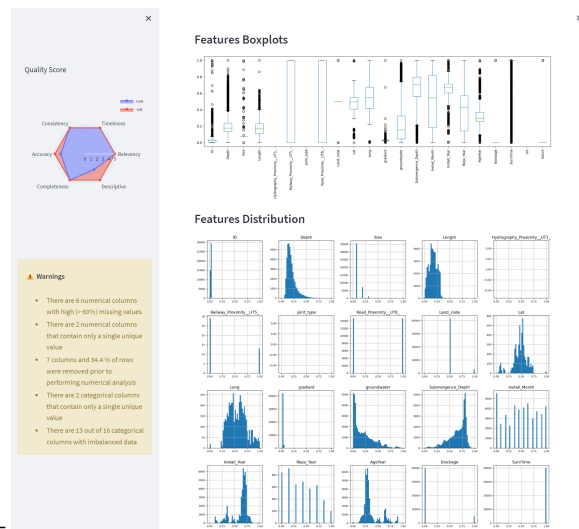
Research Fellow

Theme 1
2020-02-10

Awards and Prizes

- [Research & Innovation Project of the Year-Postgraduate Tertiary Student Award](...) (...)
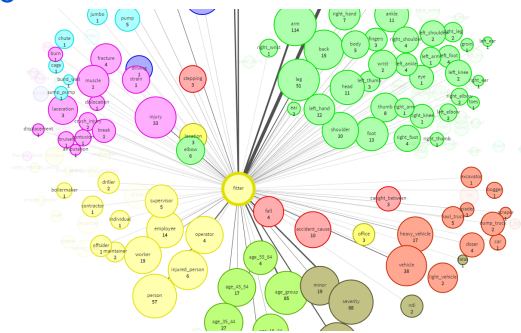- [First Prize - ICDM 2019 Knowledge Graph Contest: Team UWA](...) (...)

Tools

- **IDEA Tool** (...) — 2022-07-06

  Evaluate the appropriateness of data for the purposes of maintenance predictive analytics
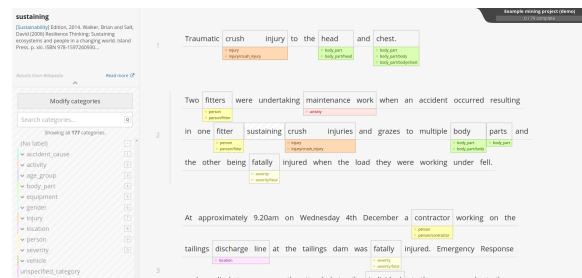
  Theme 2 Theme 5

- **Aquila** (...) — 2020-01-31

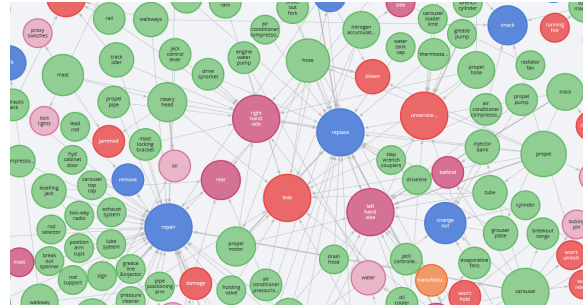 An Interactive Web-based Toolset for Knowledge Discovery from Short Text Log Data

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- **Redcoat** (...) — 2020-01-31

  A Collaborative Annotation Tool for Hierarchical Entity Typing

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- Echidna (...) — 2020-01-31

A Knowledge Graph for Maintenance

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