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## Research interests

My research interests focus on the integration of machine learning, recommendation approaches in configuration systems.

## Research outputs

### **FMTESTING: A FEATUREIDE Plug-in for Automated Feature Model Analysis and Diagnosis**

Burgstaller, T., Le, V-M., Tran, T. N. T. & Felfernig, A., 28 Sept 2023, *12th Conference on Prestigious Applications of Intelligent Systems (PAIS 2023)*. IOS Press, Vol. 372. p. 3190 - 3195 (Frontiers in Artificial Intelligence and Applications; vol. 372).

### **An overview of consensus models for group decision-making and group recommender systems**

Tran, T. N. T., Felfernig, A. & Le, V. M., 22 Sept 2023, In: *User Modeling and User-Adapted Interaction*.

### **Analysis Operations for Constraint-based Recommender Systems**

Lubos, S., Le, V-M., Felfernig, A. & Tran, T. N. T., 14 Sept 2023, *RecSys '23: Proceedings of the 17th ACM Conference on Recommender Systems*. Association of Computing Machinery, p. 709–714

### **Analysis Operations On The Run: Feature Model Analysis in Constraint-based Recommender Systems**

Lubos, S., Felfernig, A., Le, V-M., Tran, T. N. T., Benavides, D., Zamudio, J. A. & Garber, D., 28 Aug 2023, *SPLC '23: Proceedings of the 27th ACM International Systems and Software Product Line Conference*. New York: Association of Computing Machinery, Vol. A. p. 111–116 6 p.

### **Conjunctive Query Based Constraint Solving for Feature Model Configuration**

Felfernig, A., Le, V-M. & Lubos, S., 26 Jul 2023, *The 12th Conference on Information Technology and Its Applications: Proceedings of the International Conference CITA 2023*. Cham: Springer, Vol. 734. p. 357–367 (Lecture Notes in Networks and Systems; vol. 734).

### **FASTDIAGP: An Algorithm for Parallelized Direct Diagnosis**

Le, V-M., Silva, C. V., Felfernig, A., Benavides, D., Galindo, J. & Tran, T. N. T., 27 Jun 2023, *AAAI-23 Technical Tracks 5*. Williams, B., Chen, Y. & Neville, J. (eds.). Association for the Advancement of Artificial Intelligence (AAAI) , Vol. 37,5. p. 6442-6449 8 p. (Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI 2023; vol. 37).

### **User Needs for Explanations of Recommendations: In-depth Analyses of the Role of Item Domain and Personal Characteristics**

Trang Tran, T. N., Felfernig, A., Le, V. M., Ngoc Chau, T. M. & Mai, T. G., 18 Jun 2023, *UMAP 2023 - Proceedings of the 31st ACM Conference on User Modeling, Adaptation and Personalization*. Association of Computing Machinery, p. 54-65 12 p.

### **Accuracy- and consistency-aware recommendation of configurations.**

Uta, M., Felfernig, A., Helic, D. & Le, V-M., 12 Sept 2022, *26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings*. Felfernig, A., Fuentes, L., Cleland-Huang, J., Assuncao, W. K. G., Assuncao, W. K. G., Falkner, A., Azanza, M., Luaces, M. A. R., Bhushan, M., Semini, L., Devroey, X., Werner, C. M. L., Seidl, C., Le, V-M. & Horcas, J. M. (eds.). Association of Computing Machinery, Vol. A. p. 79-84 6 p. (26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings; vol. A).

### **Consistency-based integration of multi-stakeholder recommender systems with feature model configuration.**

Le, V-M., Tran, T. N. T. & Felfernig, A., 12 Sept 2022, *26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings*. Felfernig, A., Fuentes, L., Cleland-Huang, J., Assuncao, W. K. G., Assuncao, W. K. G., Quinton, C., Guo, J., Schmid, K., Huchard, M., Ayala, I., Rojas, J. M., Le, V-M. & Horcas, J. M. (eds.). Association of

Computing Machinery, Vol. B. p. 178-182 5 p.

#### **Knowledge-based configuration of videos using feature models.**

Lubos, S., Tautschnig, M., Felfernig, A. & Le, V-M., 12 Sept 2022, *26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings*. Felfernig, A., Fuentes, L., Cleland-Huang, J., Assuncao, W. K. G., Assuncao, W. K. G., Quinton, C., Guo, J., Schmid, K., Huchard, M., Ayala, I., Rojas, J. M., Le, V-M. & Horcas, J. M. (eds.). Association of Computing Machinery, Vol. B. p. 188-192 5 p.

#### **Table-based knowledge representations for industrial feature models.**

Felfernig, A., Ortner, B. & Le, V-M., 12 Sept 2022, *26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings*. Felfernig, A., Fuentes, L., Cleland-Huang, J., Assuncao, W. K. G., Assuncao, W. K. G., Quinton, C., Guo, J., Schmid, K., Huchard, M., Ayala, I., Rojas, J. M., Le, V-M. & Horcas, J. M. (eds.). Vol. B. p. 245-248 4 p.

#### **Test case aggregation for efficient feature model testing.**

Le, V-M., Felfernig, A. & Tran, T. N. T., 12 Sept 2022, *26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings*. Felfernig, A., Fuentes, L., Cleland-Huang, J., Assuncao, W. K. G., Assuncao, W. K. G., Quinton, C., Guo, J., Schmid, K., Huchard, M., Ayala, I., Rojas, J. M., Le, V-M. & Horcas, J. M. (eds.). Association of Computing Machinery, Vol. B. p. 174-177 4 p.

#### **WipeOutR: automated redundancy detection for feature models.**

Le, V-M., Felfernig, A., Uta, M., Tran, T. N. T. & Silva, C. V., 12 Sept 2022, *26th ACM International Systems and Software Product Line Conference, SPLC 2022 - Proceedings*. Felfernig, A., Fuentes, L., Cleland-Huang, J., Assuncao, W. K. G., Assuncao, W. K. G., Falkner, A., Azanza, M., Luaces, M. A. R., Bhushan, M., Semini, L., Devroey, X., Werner, C. M. L., Seidl, C., Le, V-M. & Horcas, J. M. (eds.). Association of Computing Machinery, Vol. A. p. 164-169 6 p.

#### **An overview of machine learning techniques in constraint solving**

Popescu, A., Polat Erdeniz, S., Felfernig, A., Uta, M., Atas, M., Le, V. M., Pilsl, K., Enzelsberger, M. & Tran, T., Feb 2022, In: *Journal of Intelligent Information Systems*. 58, 1, p. 91-118 28 p.

#### **The Immunity of Users' Item Selection from Serial Position Effects in Multi-Attribute Item Recommendation Scenarios**

Tran, T., Baumann, C. I., Felfernig, A. & Le, V-M., 20 Sept 2021, *Proceedings of the 8th Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS 2021), Online Event, September 25 and September 29, 2021.: co-located with 15th ACM Conference on Recommender Systems (RecSys 2021)*. Brusilovsky, P., de Gemmis, M., Felfernig, A., Lex, E., Lops, P., Semeraro, G. & Willemsen, M. C. (eds.). Vol. 2948. p. 101-111 11 p. (CEUR Workshop Proceedings; vol. 2948).

#### **Configuring Multiple Instances with Multi-Configuration**

Felfernig, A., Uta, M., Popescu, A., Le, V-M., Polat Erdeniz, S., Stettinger, M., Atas, M. & Tran, T., 17 Sept 2021, *Proceedings of the 23rd International Configuration Workshop (CWS/ConfWS 2021)*. Aldanondo, M., Falkner, A., Felfernig, A. & Stettinger, M. (eds.). Vol. 2945. p. 45-47 3 p. (CEUR Workshop Proceedings; vol. 2945).

#### **Do Users Appreciate Explanations of Recommendations? An Analysis in the Movie Domain**

Tran, T. N. T., Le, V. M., Atas, M., Felfernig, A., Stettinger, M. & Popescu, A., 13 Sept 2021, *RecSys 2021 - 15th ACM Conference on Recommender Systems*. New York, NY, USA: Association of Computing Machinery, p. 645-650 6 p.

#### **Evaluating recommender systems in feature model configuration.**

Uta, M., Felfernig, A., Le, V. M., Popescu, A., Tran, T. N. T. & Helic, D., 6 Sept 2021, *Proceedings of the 25th ACM International Systems and Software Product Line Conference, SPLC 2021*. Mousavi, M., Schobbens, P-Y., Araujo, H., Schaefer, I., ter Beek, M. H., Devroey, X., Rojas, J. M., Pinto, M., Teixeira, L., Berger, T., Noppen, J., Reinhartz-Berger, I., Temple, P., Damiani, F. & Petke, J. (eds.). Association of Computing Machinery, p. 58-63 6 p.

#### **DIRECTDEBUG: A software package for the automated testing and debugging of feature models**

Le, V-M., Felfernig, A., Tran, T. N. T., Atas, M., Uta, M., Benavides, D. & Galindo, J., Aug 2021, In: *Software Impacts*. 9, 4 p., 100085.

**DirectDebug: Automated Testing and Debugging of Feature Models**

Le, V. -M., Felfernig, A., Uta, M., Benavides, D., Galindo, J. & Tran, T. N. T., 7 May 2021, *Proceedings - 2021 ACM/IEEE 43rd International Conference on Software Engineering: New Ideas and Emerging Results, ICSE-NIER 2021*. p. 81-85 5 p.

**Group Recommendation Techniques for Feature Modeling and Configuration**

Le, V. -M., 7 May 2021, *Proceedings - 2021 IEEE/ACM 43rd International Conference on Software Engineering: Companion Proceedings, ICSE-Companion 2021*. p. 266-268 3 p.

**A Conversion of Feature Models into an Executable Representation in Microsoft Excel**

Le, V-M., Tran, T. & Felfernig, A., 4 Feb 2021, *Intelligent Systems in Industrial Applications : International Symposium on Methodologies for Intelligent Systems (ISMIS 2020)*. Stettinger, M., Leitner, G., Felfernig, A. & Ras, Z. W. (eds.). Springer, Cham, p. 153-168 16 p. (Studies in Computational Intelligence; vol. 949).

**An Overview of Recommender Systems and Machine Learning in Feature Modeling and Configuration**

Felfernig, A., Le, V-M., Popescu, A., Uta, M., Tran, T. & Atas, M., Feb 2021, *VaMoS'21: 15th International Working Conference on Variability Modelling of Software-Intensive Systems*. Grunbacher, P. (ed.). New York, NY: Association of Computing Machinery, p. 1-8 8 p. 16. (ACM International Conference Proceeding Series).

**Counteracting exam cheating by leveraging configuration and recommendation techniques**

Le, V. M., Tran, T. N. T., Felfernig, A., Atas, M., Weiß, L., Popescu, A., Stettinger, M. & Polat-Erdeniz, S., 2021, In: CEUR Workshop Proceedings. 2945, p. 73-80 8 p.

**Recommender Systems Beyond E-Commerce: Presence and Future**

Felfernig, A., Tran, T. N. T. & Le, V-M., 2021, *Consumer Happiness: Multiple Perspectives*. 1 ed. Springer Singapore, p. 203-230 28 p. (Studies in Rhythm Engineering).

**Supporting Feature Model-Based Configuration in Microsoft Excel**

Felfernig, A., Le, V. M. & Tran, T., 10 Sept 2020, p. 35-38. 4 p.

**Social choice-based explanations: An approach to enhancing fairness and consensus aspects**

Tran, T. N. T., Atas, M., Le, M. V., Samer, R. & Stettinger, M., 28 Mar 2020, In: *Journal of Universal Computer Science* . 26, 3, p. 402-431 30 p.

**User Interfaces for Counteracting Decision Manipulation in Group Recommender Systems**

Tran, T. N. T., Felfernig, A., Le, V. M., Atas, M., Stettinger, M. & Samer, R., Jun 2019.