Tomas Cerny

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EDUCATION

CZECH TECH. UNIVERSITY
Doctor of Philosophy
January 2016 | Prague, CZ
Supervisors: Michael J. Donahoo
Jan Janousek

BAYLOR UNIVERSITY
MS in Computer Science
May 2009 | Waco, TX
Upsilon Pi Epsilon
Cum. GPA: 3.93 / 4.0^{top}

CZECH TECH. UNIVERSITY
Engineer (Computer Science)
June 2009 | Prague, CZ
Faculty of Electrical Engineering
Graduate with honours
Cum. Avg: 1.15 / 1.0^{top}

CZECH TECH. UNIVERSITY
Bachelor (Computer Science)
December 2006 | Prague, CZ
Faculty of Electrical Engineering
Graduate with honours
Cum. Avg: 1.12 / 1.0^{top}

LINKS

LinkedIn:// tomascerny
ResearchGate:// Tom_Cerny
GoogleScholar:// tomascerny

MEMBERSHIP

- Upsilon Pi Epsilon
- ACM Professional/SigApp
- Gamma Beta Phi

CONFERENCE STAFF

ACM SAC'22 - Program Chair
ACM SAC'21 - Publicity Chair
ACM RACS'21 - Program Chair
ACM SAC'20 - Conference Chair
ACM RACS'18-20 - Poster Chair
ACM RACS'16/17 - Conference Chair
ICITCS'16 - General Chair
ACM SAC'16/17/20/21 - Track Chair
ICPC World Finals - Since 2007

STUDENTS

- Doctoral: Cemus ('19), Trnka ('22)
- Doctoral current: ElSayed, Quevedo
- Master students - 32 theses
- Bachelor students - 32 theses

EXPERIENCE

BAYLOR UNIVERSITY
Assistant Professor | August 2017 – Present | Waco, TX
PostDoc | February – August 2017

FEE, CZECH TECHNICAL UNIVERSITY IN PRAGUE
Assistant Professor | September 2009 – February 2017 | Prague, CZ

INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST
Lead Developer | December 2006 – Present | Waco, TX / Prague, CZ

GOPAS A.S., CZ, SK
Lecturer | September 2009 – February 2017 | Prague, CZ

AQUASOFT S.R.O., CZ
Technology Consultant | February 2011 – July 2011 | Prague, CZ

BAYLOR UNIVERSITY
Doctoral researcher | May 2010 – August 2010 | Waco, TX

CHARLES UNIVERSITY
External Lecturer | September 2009 – March 2010 | Prague, CZ

PROJECTS & GRANTS

2022	(Co-PI) NSF: Center for Std. and Ethics in Artificial Intelligence	(20k USD)
2019-22	(PI) NSF: IRES Track I: U.S.-Czech Student Research Experience Software Test Automation & Quality Assurance	(288k USD)
2020-21	(Coinvestigator) DHHS (SBIR): Healthy Behaviors Through Active Design; Evidence-Based Web Application to Inform Design and Public Policy	(340k USD)
2020-21	(PI) ACM: ACM SAC'20/21 Online infrastructure	(9.5k USD)
2019-20	(PI) Red Hat: Software Test Automation & Quality Assurance	(22.8k USD)
2016-20	(Co-PI) QA system for IoT, TACR Grant, CTU & Red Hat	(450k USD)
2016-17	Joint Red Hat & CTU FEE Lab Lead - Open-Source Projects	
2015-16	Development & Quality Assurance of Java Middleware	(34k USD)
2013-17	Avast Foundation: Talented Students Grant for UPE	(31k USD)
2012-13	CTU Institutional Development Plan - Web Portal	(14k USD)
2010-15	CTU Student Grant Competitions - SGS Grants	(37k USD)
2007-now	ACM-ICPC - Contest management system	

AWARDS

2018	Outstanding Service Award ACM SIGAPP
2015	Outstanding Service Award ACM SIGAPP
2015	Czech Literature Foundation for Young Scientists
2014	Best Poster Award, SofSem, CZ
2012	Supervisor of Diploma Thesis of the Year, 2nd and 3rd Place, CZ
2011	The ICPC Joseph S. DeBlasi Outstanding Contribution Award
2009	Diploma Thesis of the Year + Dean's Award for Outstanding Thesis, CZ
2008	Baylor Computer Science Outstanding Graduate Assistant Award, US

REFERENCES

Prof. M.J. Donahoo jeff_donahoo@baylor.edu ICPC Deputy Executive Director, Baylor Uni.
Prof. Jiman Hong jiman@ssu.ac.kr ACM SigAPP Chair, Soongsil University
Prof. Sung Y. Shin sung.shin@sdstate.edu ex-ACM SigAPP Chair, South Dakota State Uni.

PUBLICATIONS

Journals:

[J.1] Bushong, Vincent, Amr S. Abdelfattah, Abdullah A. Maruf, Dipta Das, Austin Lehman, Eric Jaroszewski, Michael Coffey, Tomas Cerny, Karel Frajtak, Pavel Tisnovsky, and Miroslav Bures. On Microservice Analysis and Architecture Evolution: A Systematic Mapping Study, Applied Sciences, 11, no. 17: 7856, 2021, (WOS) (2020 IF 2.679) https://doi.org/10.3390/app11177856

[J.2] Das D., Walker A., Bushong V., Svacina J., Cerny T., and Matyas V., On automated RBAC assessment by constructing centralized perspective for microservice mesh, PeerJ Computer Science7:e376, 2021, (WOS) (2020 IF 1.39) https://doi.org/10.7717/peerj-cs.376

[J.3] Cerny, Tomas and Svacina, Jan and Das, Dipta and Bushong, Vincent and Bures, Miroslav and Tisnovsky, Pavel and Frajtak, Karel and Shin, Dongwan and Huang, Jun. On Code Analysis Opportunities and Challenges for Enterprise Systems and Microservices. IEEE Access, 8, 159449–159470, IEEE, 2020, (WOS) (2020 IF 3.367) 10.1109/ACCESS.2020.3019985

[J.4] Walker, Andrew and Das, Dipta and Cerny, Tomas. Automated Code-Smell Detection in Microservices Through Static Analysis: A Case Study. Applied Sciences, 10(21):7800, MDPI, 2020, (WOS) (2020 IF 2.679) https://doi.org/10.3390/app10217800

[J.5] Huang, Jun and Yu, Baohua and Xing, Cong-cong and Cerny, Tomas and Ning, Zhaolong. Online Energy Scheduling Policies in Energy Harvesting Enabled D2D Communications. IEEE Transactions on Industrial Informatics, IEEE, 2020, (WOS) (2020 IF 10.215) https://doi.org/10.1109/TII.2020.3005440

[J.6] Walker, Andrew and Cerny, Tomas and Song, Eungee. Open-source tools and benchmarks for code-clone detection: past, present, and future trends. ACM SIGAPP Applied Computing Review, 19(4), 28–39, ACM, 2020 https://doi.org/10.1145/3381307.3381310

[J.7] Walker, Andrew and Cerny, Tomas. On cloud computing infrastructure for existing code-clone detection algorithms. ACM SIGAPP Applied Computing Review, 20(1), 5–14, ACM, 2020 https://doi.org/10.1145/3392350.3392351

[J.8] Michal Trnka, Jan Svacina, Tomas Cerny, Eunjee Song, Jiman Hong, Miroslav Bures. Securing Internet of Things Devices Using The Network Context. IEEE Transactions on Industrial Informatics, 1–11, IEEE, 2020, (WOS) (2020 IF 10.215) https://doi.org/10.1109/TII.2019.2954100

[J.9] Bestoun S. Ahmed, Miroslav Bures, Karel Frajtak, Tomas Cerny. Aspects of Quality in Internet of Things (IoT) Solutions: A Systematic Mapping Study. IEEE Access, 7, 13758–13780, IEEE, 2019, (WOS) (2019 IF 3.745) https://doi.org/10.1109/ACCESS.2019.2893493

[J.10] Cerny Tomas. Aspect-Oriented Challenges in System Integration with Microservices, SOA and IoT. Enterprise Information Systems, 13(4):467–489, Taylor and Francis, 2018 (WOS) (2018 IF 2.122) https://doi.org/10.1080/17517575.2018.1462406

[J.11] Miroslav Bures, Tomas Cerny, Karel Frajtak, Bestoun S. Ahmed. Testing the Consistency of Business Data Objects Using Extended Static Testing of CRUD Matrices. Cluster Computing Journal, 22(1):963–976, Springer US, Jan 2019 (WOS) (2018 IF 1.851)

[J.12] Michal Trnka, Tomas Cerny, Nathaniel Stickney. Survey of Authentication and Authorization for the Internet of Things. Security and Communication Networks, 2018, 1–17, 2018 (WOS) (2018 IF 2.036)

[J.13] Min, Hong, Taesik Kim, Junyoung Heo, Tomas Cerny, Sriram Sankaran, Bestoun S. Ahmed, and Jinman Jung Pattern Matching Based Sensor Identification Layer for an Android Platform. Wireless Communications and Mobile Computing, 1–11, vol. 2018, Article ID 4734527. 2018. (WOS) (2018 IF 1.396)

[J.14] Tomas Cerny, Michael J. Donahoo. Second Screen Engagement of Event Spectators. Advances in Human-Computer Interaction, vol 2018, Article ID 3845123, 1–20, 2018 (Scopus, SJR 2018 0.17; 2019 Acceptance 6%)

[J.15] Karel Cemus, Filip Klimes, Ondrej Kratochvil, Tomas Cerny. Separation of concerns for distributed cross-platform context-aware user interfaces. Cluster Computing Journal, 20(3):2355-–2362, Springer US, September 2017 (WOS) (2017 IF 1.683)

[J.16] Tomas Cerny, Michael J. Donahoo. On Energy Impact of Web User Interface Approaches. Cluster Computing Journal, 19(4):1853-–18631, Springer US, December 2016 (WOS) (2016 IF 2.040)

[J.17] Tomas Cerny, Michael J. Donahoo. On separation of platform-independent particles in user interfaces. Cluster Computing Journal, 18(3):1215–1228, Springer US, September 2015 (WOS) (2015 IF 1.514)

[J.18] Tomas Cerny, Miroslav Macik, Michael J. Donahoo and Jan Janousek. On Distributed Concern Delivery in User Interface Design. Computer Science and Information Systems (ComSIS) Journal, 12(2):655–681 2015. (WOS) (2015 IF 0.623)

[J.19] Miroslav Macik, Tomas Cerny, and Pavel Slavik. Context-sensitive, cross-platform user interface generation. Journal on Multimodal User Interfaces, pages 1–13. Springer Berlin Heidelberg, 2014. (WOS) (2014 IF 0.797)

[J.20] Tomas Cerny and Eunjee Song. Model-driven rich form generation. INFORMATION-An International Interdisciplinary Journal, 15(7, SI):2695–2714, JUL 2012. (WOS) (2012 IF 0.358)

[J.21] Tomas Cerny, Michael J. Donahoo, and Michal Trnka. Contextual Understanding of Microservice Architecture: Current and Future Directions. SIGAPP Applied Computing Review, 17(4):29–45, 2017. (WOS)

[J.22] Tomas Cerny, Karel Cemus, Michael J. Donahoo, and Eunjee Song. Aspect-driven, data-reflective and context-aware user interfaces design. SIGAPP Applied Computing Review, 13(4):53–65, 2013. (ACM DL)

[J.23] Tomas Cerny and Bozena Mannova. Competitive and Collaborative Approach Towards a More Effective Education in Computer Science. Contemporary Educational Technology, 2(2):163–173, 2011. (Google Scholar)

[J.24] Michal Trnka and Tomas Cerny. Authentication and Authorization rules sharing for Internet of Things. Software Networking, River Publishers, 2017(1):35–52, 2017. (Google Scholar)

[J.25] Karel Cemus and Tomas Cerny. Automated Extraction of Business Documentation in Enterprise Information Systems. SIGAPP Applied Computing Review, 16(4):5–13. 2017. (ACM DL)

[J.26] Martin Tomasek and Tomas Cerny. Automated user interface generation involving field classification. Software Networking, River Publishers, 2017(1):53-78. 2017. (Google Scholar)

Conference papers:

[C.1] Wood D., and Cerny T. “Database-Conscious End-to-End Testing for Reactive Systems using Containerization” In Proceedings of the 23rd International Conference on Enterprise Information Systems - Volume 2. ICEIS, 2021, p. 377-383, http://doi.org/10.5220/0010494403770383

[C.2] Fuller M., Das D., Cerny T., Brighton E., Schiewe M. and Tisnovsky P. “Automated Error Log Resolution: A Case Study,” In Proceedings of the 36th Annual ACM Symposium on Applied Computing (SAC ’21). Association for Computing Machinery, New York, NY, USA, 2021, p. 1298–1304, https://doi.org/10.1145/3412841.3442004

[C.3] Marks J., Islam R., Raavi M., Montano B., Chong J., Cerny T. and Shin D. “Differential Privacy Applied To Smart Meters: A Mapping Study,” In Proceedings of the 36th Annual ACM Symposium on Applied Computing (SAC ’21). Association for Computing Machinery, New York, NY, USA, 2021, p. 761–770, https://doi.org/10.1145/3412841.3442360

[C.4] Lombardi V., Ortiz S., Phifer J., Cerny T. and Shin D. “Behavior Control-Based Approach to Influencing User’s Cybersecurity Actions Using Mobile News App,” In Proceedings of the 36th Annual ACM Symposium on Applied Computing (SAC ’21). Association for Computing Machinery, New York, NY, USA, 2021, p. 912–915 https://doi.org/10.1145/3412841.3442103

[C.5] Bushong, V; Sanders, R; Curtis, J; Du, M; Cerny, T; Frajtak, K; Bures, M; Tisnovsky, P; Shin, D. “On matching log analysis to source code: A systematic mapping study,” In International Conference on Research in Adaptive and Convergent Systems(RACS ’20), ACM, New York, NY, USA, RACS ’20, 2020, p. 1–6. http://doi.org/10.1145/3400286.3418262

[C.6] Bushong, V; Sanders, R; Curtis, J; Du, M; Cerny, T; Frajtak, K; Tisnovsky, P; Shin, D. “On log analysis and stack trace use to improve program slicing,” In Information Science and Applications, Springer Singapore, 2021, p. 265-775 https://doi.org/10.1007/978-981-33-6385-4

[C.7] Cerny, T; Walker, A; Bushong, V; Das, D; Frajtak, K; Bures, M; Tisnovsky, P. “Mapping study on constraint consistency checking in distributed enterprise systems,” In International Conference on Research in Adaptive and Convergent Systems(RACS ’20), ACM, New York, NY, USA, RACS ’20, 2020, p. 1–8. http://doi.org/10.1145/3400286.34182571

[C.8] Das, D; Schiewe, M; Brighton, E; Fuller, M; Cerny, T; Bures, M; Frajtak, K; Shin, D; Tisnovsky, P. “Failure prediction by utilizing log analysis: A systematic mapping study,” In International Conference on Research in Adaptive and Convergent Systems(RACS ’20), ACM, New York, NY, USA, RACS ’20, 2020, p. 1–7. http://doi.org/10.1145/3400286.3418263

[C.9] Duncan, S; Walker, A; DeHaan, C; Alvord, S; Cerny, T; Tisnovsky, P. “Pyclone: A python code clone test bank generator,” Information Science and Applications. In Lecture Notes in Electrical Engineering, vol 739. Springer, Singapore, 2021, https://doi.org/10.1007/978-981-33-6385-4_22

[C.10] Raffety, J; Stone, B; Woodahl, C; Svacina, J; Cerny, T; Tisnovsky, P. “Multi-source log clustering in distributed systems,” In Information Science and Applications. Lecture Notes in Electrical Engineering, vol 739. Springer, Singapore., 2021, https://doi.org/10.1007/978-981-33-6385-4_4

[C.11] Svacina, J; Bushong, V; Das, D; Cerny, T. “A comprehensive enterprise system metamodel for quality assurance,” Information Science and Applications. Lecture Notes in Electrical Engineering, vol 739. Springer, Singapore. , 2021, https://doi.org/10.1007/978-981-33-6385-4_23

[C.12] Svacina, J; Raffety, J; Woodahl, C; Brooklynn, S; Cerny, T; Bures, M; Frajtak, K; Shin, D; Tisnovsky, P. “On vulnerability and security log analysis: A systematic literature review on recent trends,” In International Conference on Research in Adaptive and Convergent Systems, ACM, RACS ’20, 2020, p. 1–6. http://doi.org/10.1145/3400286.3418261

[C.13] Walker, A; Das, D; Cerny, T. “Automated microservice code-smell detection,” In Information Science and Applications. Lecture Notes in Electrical Engineering, vol 739. Springer, Singapore, 2021, https://doi.org/10.1007/978-981-33-6385-4_20

[C.14] Walker, A; Laird, I; Cerny, T. “On automatic software architecture reconstruction of microservice applications,” Information Science and Applications. Lecture Notes in Electrical Engineering, vol 739. Springer, Singapore., 2021, https://doi.org/10.1007/978-981-33-6385-4_21

[C.15] Svacina, J; Simmons, J; Cerny, T. “Semantic code clone detection for enterprise applications,” In Proceedings of the The 35th ACM/SIGAPP Symposium On Applied Computing, ACM, ACM SAC ’20, 2020, p. 129–-131. https://doi.org/10.1145/3341105.3374117

[C.16] Andrew Walker, Jan Svacina, Jonathan Simmons, Tomas Cerny. On Automated Role-Based Access Control Assessment in Enterprise System. Information Science and Applications. Lecture Notes in Electrical Engineering, 1–11, Springer Singapore, 2020. https://doi.org/10.1007/978-981-15-1465-4_38

[C.17] Andrew Walker, Michael Coffey, Pavel Tisnovsky, Tomas Cerny. On Limitations of Modern Static Analysis Tools. Information Science and Applications. Lecture Notes in Electrical Engineering, 1–10, Springer Singapore, 2020. https://doi.org/10.1007/978-981-15-1465-4_57

[C.18] Tomas Cerny, Michael J.Donahoo. Survey on Compromise-defensive System Design. Information Science and Applications 2018: ICISA 2018, LNEE, pages 513–521, Springer Singapore, 2018 (WOS).

[C.19] Michal Trnka, Filip Rysavy, Tomas Cerny, Nathaniel Stickney. Using Wi-Fi enabled Internet of Things devices for context-aware authentication. Information Science and Applications 2018: ICISA 2018, LNEE, pages 635–642, Singapore, 2018 (WOS).

[C.20] Jiri Sebek, Petr Vondrus, Tomas Cerny. Degree of similarity of root trees. Information Science and Applications 2018: ICISA 2018, LNEE, pages 581–591, Singapore, 2018 (WOS).

[C.21] Miroslav Bures, Tomas Cerny, Bestoun S. Ahmed. Internet of Things: Current Challenges in the Quality Assurance and Testing Methods. Information Science and Applications 2018: ICISA 2018, LNEE, pages 625–634, Singapore, 2018 (WOS).

[C.22] Miroslav Bures and Tomas Cerny. Static Testing Using Different Types of CRUD Matrices. Information Science and Applications 2017: ICISA 2017, LNEE, pages 594–602, Springer Singapore, 2017 (WOS).

[C.23] Miroslav Bures, Tomas Cerny and Matej Klima Prioritized Process Test: More Efficiency in Testing of Business Processes and Workflows. Information Science and Applications 2017: ICISA 2017, LNEE, pages 585–593, Springer Singapore, 2017 (WOS).

[C.24] Michal Trnka and Tomas Cerny Context-aware Security using Internet of Things Devices. Information Science and Applications 2017: ICISA 2017, LNEE, pages 706–713, Springer Singapore, 2017 (WOS).

[C.25] Karel Cemus, Filip Klimes and Tomas Cerny. Aspect-driven Context-aware Services. In Proceedings of the 2017 Federated Conference on Computer Science and Information Systems, FedCSIS, volume 11, pages 1307–-1314, IEEE Computer Society Press and Polish Information Processing Society, 2017. (WOS).

[C.26] Karel Cemus and Tomas Cerny. Business Documentation Derivation from Aspect-driven Enterprise Information Systems. In Proceedings of the 2016 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 153–158. 2016. (WoS)

[C.27] Tomas Cerny, Michal Trnka and Michael Jeff Donahoo. Towards Shared Security through Distributed Separation of Concerns. In Proceedings of the 2016 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 169–172. 2016. (WoS)

[C.28] Jiri Sebek, Tomas Cerny and Karel Richta. Adaptive Application Structure Design for Java EE Applications. In Proceedings of the 2016 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 159–164. 2016. (WoS)

[C.29] Michal Trnka and Tomas Cerny. Identity management of devices in Internet of Things environment. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 307–310, IEEE, 2016. (WoS)

[C.30] Jan Helbich and Tomas Cerny. Energy impact of web user interface technology on mobile devices. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 190–192, IEEE, 2016. (WoS)

[C.31] Filip Rysavy, Tomas Cerny and Jiri Sebek. Aspect-Oriented User Interfaces Design Integration to Angular 2 Framework. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 187–189, IEEE, 2016. (WoS)

[C.32] Karel Cemus, Filip Klimes, Ondrej Kratochvil and Tomas Cerny. Distributed Multi-platform Context-aware User Interface for Information Systems. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 172–175, IEEE, 2016. (WoS)

[C.33] Martin Tomasek, and Tomas Cerny. Context-Aware User Interface Field Classification. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 130–134, IEEE, 2016. (WoS)

[C.34] Zdenek Brabec, Tomas Cerny and Martin Tomasek. On Metadata Extension to Derive Data Presentations with Angular 2. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 183–186, IEEE, 2016. (WoS)

[C.35] Jiri Sebek and Tomas Cerny. AOP-based approach for local data management in adaptive interfaces. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 120–124, IEEE, 2016. (WoS)

[C.36] Tomas Cerny and Michael Jeff Donahoo. Survey On Second Screen Systems. Proceedings of the 6th International Conference on IT Convergence and Security, 2016., pages 178–182, IEEE, 2016. (WoS)

[C.37] Lubos Matl, Tomas Cerny and Michael J.Donahoo. Effective manycast messaging for Kademlia network In Proceedings of 30th ACM Symposium On Applied Computing (SAC '15), ACM, New York, NY, USA, pages 646–652, 2015. (WoS)

[C.38] Karel Cemus, Tomas Cerny and Michael J. Donahoo. Automated Business Rules Transformation into a Persistence Layer. Procedia Computer Science, 62:312–-318, Elsevier, 2015. (Scopus|Elsevier) (2014 SNIP 0.705)

[C.39] Tomas Cerny Miroslav Macik, Michael J. Donahoo. and Jan Janousek. Efficient Description and Cache Performance in Aspect-Oriented User Interface Design. In Proceedings of the 2014 Federated Conference on Computer Science and Information Systems, FedCSIS, volume 2, pages 1667–1676. IEEE Computer Society Press and Polish Information Processing Society, 2014. (WOS)

[C.40] Karel Cemus and Tomas Cerny. Aspect-driven design of information systems. In SOFSEM 2014: Theory and Practice of Computer Science, LNCS 8327, volume 8327, pages 174–186. Springer International Publishing Switzerland 2014, 2014. (WOS)

[C.41] Tomas Cerny, Petr Praus, Slavka Jaromeska, Lubos Matl and Michael J. Donahoo. Towards a Smart, Self-scaling Cooperative Web Cache. In SOFSEM 2012: Theory and Practice of Computer Science, LNCS 8327, pages 443–455. Springer International Publishing 2012, 2012. (WOS)

[C.42] Tomas Cerny, Vaclav Chalupa, Lukas Rychtecky, and Tomas Linhart. Machine-driven code inspection to reduce restated information. In Lecture Notes in Information Technology, 2012. (WOS)

[C.43] Petr Praus, Slavka Jaromerska and Tomas Cerny. SScAC: towards a framework for small-scale software architectures comparison. SOFSEM 2011: Theory and Practice of Computer Science., pages 482–493, Springer, 2011. (WOS)

[C.44] Antonin Smid, Ruolin Wang and Tomas Cerny. Case Study on Data Communication in Microservice Architecture. In Proceedings of the 2019 Conference on research in adaptive and convergent systems (RACS). pages 261–267, ACM, New York, NY, USA, 2019 (Scopus).

[C.45] Abdulrahman Abu Elkhail, Jan Svacina and Tomas Cerny. Intelligent Token-Based Code Clone Detection System for Large Scale Source Code. In Proceedings of the 2019 Conference on research in adaptive and convergent systems (RACS). pages 256–260, ACM, New York, NY, USA, 2019 (Scopus)

[C.46] Abdulrahman Abu Elkhail and Tomas Cerny. On Relating Code Smells to Security Vulnerabilities. 2019 IEEE 5th Intl Conference on Big Data Security on Cloud (BigDataSecurity), IEEE Intl Conference on High Performance and Smart Computing, (HPSC) and IEEE Intl Conference on Intelligent Data and Security (IDS), pages 7–12, IEEE, Washington, DC, USA, 2019. (Scopus)

[C.47] Michal Trnka, Jan Svacina, Tomas Cerny and Eunjee Song. Aspect oriented context-aware and event-driven data processing for internet of things. In Proceedings of the 2018 Conference on research in adaptive and convergent systems (RACS). pages 319-323, ACM, New York, NY, USA, 2018 (Scopus)

[C.48] Tomas Cerny, Filip Sedlisky, Michael J Donahoo. On isolation-driven automated module decomposition. In Proceedings of the 2018 Conference on research in adaptive and convergent systems (RACS). pages 302-307, ACM, New York, NY, USA, 2018 (Scopus)

[C.49] Safwan Mawlood Hussein, Michael J Donahoo, Tomas Cerny. Security Challenges in Smart City Applications. Int'l Conf. Security and Management | SAM'18. pages 306-310, CSREA Press, 2018

[C.50] Tomas Cerny, Michael Jeff Donahoo and Jiri Pechanec. Disambiguation and Comparison of SOA, Microservices and Self-Contained Systems. In Proceedings of the 2017 Conference on research in adaptive and convergent systems (RACS). pages 228–235, ACM, New York, NY, USA, 2017. (Scopus)

[C.51] Tomas Cerny and Michael J.Donahoo. Survey on Concern Separation in Service Integration. SOFSEM 2016: Theory and Practice of Computer Science, LNCS, pages 518–531, Springer Berlin Heidelberg, 2016. (Scopus)

[C.52] Karel Cemus, Tomas Cerny, Lubos Matl and Michael J.Donahoo. Aspect, Rich, and Anemic Domain Models in Enterprise Information Systems. SOFSEM 2016: Theory and Practice of Computer Science, LNCS, pages 445-456, Springer Berlin Heidelberg, 2016. (Scopus)

[C.53] Michal Trnka and Tomas Cerny On Security Level Usage in Context-aware Role-based Access Control In Proceedings of 31th ACM Symposium On Applied Computing (SAC '16), ACM, New York, NY, USA, 2016. (Scopus)

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[C.54] Tomas Cerny and Michael J.Donahoo. Separating out Platform-independent Particles of User Interfaces. Information Science and Applications, LNEE, pages 941–948, Springer Berlin Heidelberg, 2015. (Scopus)

[C.55] Tomas Cerny, Lubos Matl, Karel Cemus and Michael J.Donahoo. Evaluation of Separated Concerns in Web-based Delivery of User Interfaces. Information Science and Applications, LNEE, pages 933–940, Springer Berlin Heidelberg, 2015. (Scopus)

[C.56] Tomas Cerny and Michael J.Donahoo. Impact of Remote User Interface Design and Delivery on Energy Demand. Information Science and Security (ICISS), 2015 2nd International Conference on, IEEE, pages 1–4, 2015. (Scopus)

[C.57] Jiri Sebek, Michal Trnka and Tomas Cerny On Aspect-Oriented Programming in Adaptive User Interfaces. Information Science and Security (ICISS), 2015 2nd International Conference on, IEEE, pages 1–5, 2015. (Scopus)

[C.58] Michal Trnka and Tomas Cerny. Context-aware Role-based Access Control Using Security Levels. In Proceedings of the 2015 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 280–284. (Scopus)

[C.59] Martin Tomasek and Tomas Cerny. On web services UI in user interface generation in standalone applications. In Proceedings of the 2015 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 363–368. (Scopus)

[C.60] Karel Cemus, Tomas Cerny, Lubos Matl, and Michael J. Donahoo. Enterprise information systems: comparison of aspect-driven and MVC-like Approaches. In Proceedings of the 2015 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 330–336. (Scopus)

[C.61] Karel Cemus, Tomas Cerny, and Michael J. Donahoo. Evaluation of approaches to business rules maintenance in enterprise information systems. In Proceedings of the 2015 Conference on research in adaptive and convergent systems (RACS). ACM, New York, NY, USA, pages 324–329. (Scopus)

[C.62] Tomas Cerny, Michael J. Donahoo, and Eunjee Song. Towards effective adaptive user interfaces design. In Proceedings of the 2013 Research in Applied Computation Symposium (RACS 2013), October 2013. (Scopus)

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