8. References

[1] D.Namiot and M.Sneps-Sneppe, "On microservices architecture," *Intl. Journal of Open Information Technologies*, vol. 2, pp. 24–27, 2014.

[2] M. Roberts, "Serverless architectures," 2016. [Online]. Available: https://martinfowler.com/articles/serverless.html

[3] T. Lynn, P. Rosati, A. Lejeune, and V. Emeakaroha, "A preliminary review of enterprise serverless cloud computing (function-as-a-service) platforms," in *Proc. IEEE Intl. Conf. on Cloud Computing Technology and Science (CloudCom)*, December 2017.

[4] A. Eivy, "Be wary of the economics of serverless cloud computing," in *Proc. IEEE Cloud Computing*, April 2017, pp. 6–12.

[5] J. Lewis and M. Fowler, *Microservices*, 2014. [Online]. Available: https://martinfowler.com/articles/microservices.html

[6] T. Salah, M. J. Zemerly, C. Y. Yeun, M. Al-Qutayri, and Y. Al- Hammadi, "The evolution of distributed systems towards microservices architecture," in *Proc. 11th Intl. Conf. on Internet Technology and Secured Transactions (ICITST)*, December 2016.

[7] N. Alshuqayran, N. Ali, and R. Evans, "A systematic mapping study in microservice architecture," in *Proc. 9th IEEE Intl. Conf. on Service- Oriented Computing and Applications (SOCA)*, November 2016.

[8] P. D. Francesco, I. Malavolta, and P. Lago, "Research on architecting microservices: Trends, focus, and potential for industrial adoption," in *Proc. IEEE Intl. Conf. on Software Architecture (ICSA)*, April 2017.

[9] R. Krikhaar, A. Postma, A. Sellink, M. Stroucken, and C. Verhoef, "A two-phase process for software architecture improvement," in *Proc. IEEE Intl. Conf. on Software Maintenance*, August 1999.

[10] J. Muskens, M. R. V. Chaudron, and R. Westgeest, "Software architecture analysis tool: software architecture metrics collection," in *Proc. 3rd PROGRESS Workshop on Embedded Systems*, October 2002, pp. 128–139.

[11] M. T. Ionita, D. K. Hammer, and H. Obbink, "Scenario-based software architecture evaluation methods: An overview," 2002.

[12] P. Clements, R. Kazman, and M. Klein, "Evaluating software architectures: Methods and case studies, Addison Wesley," 2002.

[13] R. Kazman, L. Bass, G. Abowd, and M. Webb, "Saam: A method for analyzing the properties of software architectures," in *Proc. 16th IEEE Intl. Conf. on Software Engineering*, May 1994.

[14] N. Medvidovic and R. N. Taylor, “A classification and comparison framework for software architecture description languages,” in *Proc. IEEE Transactions on Software Engineering*, January 2000.

[15] S. Newman, “Building microservices: Designing fine-grained systems,” 2015.

[16] J.Gouigouxand and D.Tamzalit,“From monolith to microservices: Lessons learned on an industrial migration to a web oriented architecture,” in *Proc. IEEE Intl. Conf. on Software Architecture Workshops (ICSAW)*, April 2017.

[17] C. M. Aderaldo, N. C. Mendona, and C. Pahl, “Benchmark requirements for microservices architecture research,” in *Proc. IEEE/ACM 1st Intl. Workshop on Establishing the Community-Wide Infrastructure for Architecture-Based Software Engineering (ECASE)*, May 2017.

[18] A. Avram, “Faas, Paas, and the benefits of the serverless architecture,” 2016. [Online]. Available: https://www.infoq.com/news/2016/06/faas- serverless-architecture

[19] P. Castro, V. Ishakian, V. Muthusamy, and A. Slominski, “Serverless programming (function as a service),” in *Proc. 37th IEEE Intl. Conf. on Distributed Computing Systems (ICDCS)*, June 2017.

[20] H. Liu and A. Gegov, “Rule based systems and networks: Deterministic and fuzzy approaches,” in *Proc. 8th IEEE Intl. Conf. on Intelligent Systems (IS)*, September 2016.

[21] F. Hayes-Roth, “Rule-based systems,” in *Proc. Communications of the ACM*, September 1985, pp. 921–932.

[22] E. S. D. Almeida, A. Alvaro, V. C. Garcia, L. Nascimento, S. L. Meira, and D. Lucredio, “Designing domain-specific software architecture (DSSA): Towards a new approach,” in *Proc. IEEE/IFIP Intl. Conf. on Software Architecture (WICSA)*, January 2007.

[23] J. S. Fant, “Building domain specific software architectures from software architectural design patterns,” in *Proc. 33rd IEEE Intl. Conf. on Software Engineering (ICSE)*, May 2007.

[24] G. Gangyong, Z. Cuihao, and C. Wei, “A domain-specific software architecture,” in *Proc. IEEE Intl. Conf. on Intelligent Processing Systems*, October 1997.

[25] V. Mezhuyev, “Architecture of software tools for domain-specific mathematical modelling,” in *Proc. IEEE Intl. Conf. on Computer, Communications, and Control Technology (I4CT)*, September 2014.

[26] C. Hu, F. Jiao, and C. Zhao, “An architectural quality assessment for domain-specific software,” in *Proc. IEEE Intl. Conf. on Computer Science and Software Engineering*, December 2008.

[27] S. Newman, “Backends for frontends,” November 2015. [Online]. Available: http://samnewman.io/patterns/architectural/bff/

[28] M. Kajko-Mattsson, G. A. Lewis, and D. B. Smith, “A framework for roles for development, evolution and maintenance of SOA-Based systems,” in *Proc. IEEE Intl. Workshop. on Systems Development in SOA Environments (SDSOA’07: ICSE Workshops 2007)*, May 2007.

[29] M. Zuiga-Prieto, E. Insfran, and S. Abraho, “Architecture description language for incremental integration of cloud services architectures,” in *Proc. 10th IEEE Intl. Symposium. on the Maintenance and Evolution of Service-Oriented and Cloud-Based Environments (MESOCA)*, October 2016.

[30] J. Wang, W. Chen, and H. Yang, “Architecture description language based on software reliability evaluation for distributed computing system,” in *Proc. IEEE Intl. Conf. on Computer Application and System Modeling (ICCASM 2010)*, October 2010.

[31] A. Smeda, M. Oussalah, and T. Khammaci, “Madl: Meta architecture description language,” in *Proc. 3rd ACIS Intl. Conf. on Software Engineering Research, Management and Applications (SERA’05)*, August 2005.

[32] Y. Zhenhua and C. Yuanli, “Novel architecture description language based on high-level petri nets,” in Proc. IEEE Intl. Conf. on Information and Communication Technologies: From Theory to Applications, April 2004.

[33] R. Kazman, “The essential components of software architecture design and analysis,” in *Proc. 12th Asia Pacific Conf. on Software Engineering (APSEC’05)*, December 2005.

[34] F. Garcia, F. Ruiz, and M. Piattini, “Metamodeling and measurement for the software process improvement,” in *Proc. ACIS/IEEE Intl. Conf. on Computer Systems and Applications*, July 2003.

[35] E. Hebisch, M. Book, and V. Gruhn, “Scenario-based architecting with architecture trace diagrams,” in *Proc. 5th IEEE/ACM Intl. Workshop. on the Twin Peaks of Requirements and Architecture*, May 2015.

[36] A. Patidar and U. Suman, “A survey on software architecture evaluation methods,” in *Proc. 2nd IEEE Intl. Conf. on Computing for Sustainable Global Development (INDIACom)*, March 2015.

[37] M. Babar and I. Gorton, “Comparison of scenario-based software architecture evaluation methods,” in *Proc. 11th Asia-Pacific Intl. Conf. on Software Engineering*, December 2004.

[38] K. J. P. G. Perera and I. Perera, “Thearchitect: A serverless-microservices based high-level architecture generation tool,” in *Proc. 17th IEEE/ACIS Intl. Conf. on Computer and Information Science (ICIS)*, June 2018.

[39] K. J. P. G. Perera and I. Perera, “A rule-based system for automated generation of serverless-microservices architecture,” in *Proc. 4th IEEE Intl. Symposium. on Systems Engineering (ISSE)*, October 2018