

Keheliya Gallaba

3480 Rue University, Montréal, QC, Canada
keheliya.gallaba@mail.mcgill.ca • +1 (514) 806-4669 • <http://keheliya.github.io/>

SUMMARY

- Experience in building developer tools at *Microsoft Research*, *Fortinet*, & *WSO2* in *Java*, *Node.js*, *Python*
- As PhD research, mining large-scale data sources in software engineering (i.e., *GitHub*, *StackOverflow*, & *TravisCI*) to provide insights for developers.
- Published in top-tier *Software Engineering* research journals & conferences (*TSE*, *ASE*, *ESEM*, *MSR*).

RESEARCH EXPERIENCE

Microsoft Research, Cambridge, UK

- PhD Research Intern, Systems and Networking Group Jun 2018 – Sep 2018
 - Supervisors: Dr Katja Kevic and Dr Brendan Murphy
 - Focus: Automatic removal of feature gates in source code

INDUSTRIAL EXPERIENCE

Fortinet Inc., Vancouver, BC, Canada

- **Software Development Engineer II**, Forticlient Team Feb 2016 – Aug 2016
 - Worked on the system for generating software vulnerability signatures, validating them, and delivering them to endpoint security software (Forticlient).

WSO2 Inc., Colombo, Sri Lanka

- **Senior Software Engineer**, Integration Technologies Team Apr 2013 – Nov 2013
 - Development and support of open source middleware solutions for enterprise integration problems.
- **Software Engineer**, Integration Technologies Team Dec 2011 – Mar 2013
 - Worked with WSO2 Business Process Server, Enterprise Service Bus, Identity Server & Governance Registry.
 - Experience with WS-BPEL & other WS-* standards, SOAP/REST web services.
 - XPATH, XSLT, Apache ODE and Eclipse plug-in development.

MENTORING & TEACHING EXPERIENCE

Undergraduate Students (Co-advised with Dr. Shane McIntosh)

- Rahul Amlekar, Noam Rabbani, Mike Harvey, Sadnan Saquif, Andrés Felipe Rincón Gamboa Sep 2017 – Apr 2018
 - Co-authored Papers: MSR18a, MSR1b
- Marco Manglaviti, Eduardo Coronado-Montoya, Yash Gupta, Yusaira Khan Sep 2016 – Apr 2017
 - Co-authored Papers: MSR17a, MSR17b

Teaching Assistant

- McGill University, Montréal, QC, Canada Fall 2017
 - ECSE321 Introduction to Software Engineering
- University of British Columbia, Vancouver, BC, Canada Winter II 2014
Winter II 2013 & Winter I 2014
 - EECE416 Software Testing and Analysis
 - EECE310 Software Engineering

EDUCATION

McGill University, Montréal, QC, Canada

- Ph.D. in Software Engineering Sep 2016 – Present
 - Thesis: Improving the Robustness and Efficiency of Continuous Integration and Continuous Deployment Tools
 - Adviser: Prof. Shane McIntosh
 - Publications: MSR17a, MSR17b, MSR18a, MSR18b, TSE18, ASE18.

University of British Columbia, Vancouver, BC, Canada

- M.A.Sc. in Software Engineering Jan 2014 – Dec 2015
 - Thesis: Characterizing and refactoring asynchronous JavaScript callbacks
 - Advisers: Prof. Ali Mesbah and Prof. Ivan Beschastnikh
 - Publications: ESEM15, ICSME17.

University of Moratuwa, Moratuwa, Sri Lanka

- B.Sc. (Hons.) in Computer Science and Engineering May 2007 – Nov 2011
 - Thesis: An analysis of BPMN 2.0 as a business process execution language
 - Advisers: Vishaka Nanayakkara and Dr Milinda Pathirage
 - Publications: CeBPM12.

AWARDS & RECOGNITION	▪ FRQNT Doctoral Research Award (Bourses de doctorat en recherche) Ranked #1 in the ICT group and obtained the competitive scholarship provided by Fonds de recherche du Québec – Nature et technologies (FRQNT).	May 2018
	▪ McGill Engineering Doctoral Award (MEDA) Full scholarship with stipend for PhD studies at McGill University.	2016 – 2019
	▪ Best Full Paper Award Awarded at The ACM/IEEE International Symposium on Empirical Software Engineering and Measurement.	Oct 2015
	▪ ISERN Student Travel Grant Awarded by The International Software Engineering Research Network (ISERN) to attend ESEM '15.	Oct 2015
ACADEMIC SERVICE	REVIEWER	
	▪ Journal of Information and Software Technology (IST)	2018
	CO-REVIEWER	
	▪ International Conference on Software Analysis, Evolution, and Reengineering (SANER)	2019
	▪ International Conference on Mining Software Repositories (MSR)	2018
	▪ Canadian Conference on Electrical and Computer Engineering (CCECE)	2018
	▪ International Conference on Software Maintenance and Evolution (ICSME)	2017
	▪ Journal of Systems and Software (JSS)	2017
	ARTIFACT EVALUATION COMMITTEE MEMBER	
	▪ Int'l Conf. on Object-oriented Programming, Systems, Languages, and Applications (OOPSLA)	2017
PUBLICATIONS	FULL PAPERS IN INTERNATIONAL JOURNALS	
	[TSE18] <u>K. Gallaba</u> and S. McIntosh, “Use and Misuse of Continuous Integration Features: An Empirical Study of Projects that (mis)use Travis CI,” <i>IEEE Transactions on Software Engineering</i> , May 2018.	
	FULL PAPERS IN INTERNATIONAL CONFERENCES	
	[ASE18] <u>K. Gallaba</u> , C. Macho, M. Pinzger, and S. McIntosh, “Noise and Heterogeneity in Historical Build Data: An Empirical Study of Travis CI”, In <i>Proceedings of the International Conference on Automated Software Engineering (ASE)</i> , 87–97, Sep 2018.	
	[ICSME17] <u>K. Gallaba</u> , Q. Hanam, A. Mesbah, and I. Beschastnikh, “Refactoring Asynchrony in JavaScript”, In <i>Proceedings of the International Conference on Software Maintenance and Evolution (ICSME)</i> , 353–363, Sep 2017.	
	[ESEM15] <u>K. Gallaba</u> , A. Mesbah, and I. Beschastnikh, “Don’t Call Us, We’ll Call You: Characterizing Callbacks in JavaScript”, In <i>Proceedings of the International Symposium on Empirical Software Engineering and Measurement (ESEM)</i> , pp. 247–256, Oct 2015. Best Paper Award	
	SHORT PAPERS IN INTERNATIONAL CONFERENCES	
	[MSR18a] N. Rabbani, M. S. Harvey, S. Saquif, <u>K. Gallaba</u> , and S. McIntosh, “Revisiting “Programmers’ Build Errors” in the Visual Studio Context”, In <i>Proceedings of the 15th International Conference on Mining Software Repositories (MSR), Mining challenge</i> , pp. 98–101, May 2018.	
	[MSR18b] “Do Software Engineers Use Autocompletion Features Differently Than Other Developers?”, R. Amlekar, A. F. R. Gamboa, <u>K. Gallaba</u> , and S. McIntosh In <i>Proceedings of the 15th International Conference on Mining Software Repositories (MSR), Mining challenge</i> , pp. 86–89, May 2018.	
	[MSR17a] M. Manglaviti, E. Coronado-Montoya, <u>K. Gallaba</u> , and S. McIntosh, “An Empirical Study of the Personnel Overhead of Continuous Integration”, In <i>Proceedings of the 14th International Conference on Mining Software Repositories (MSR), Mining challenge</i> , pp. 471–474, May 2017.	
	[MSR17b] Y. Khan, Y. Gupta, <u>K. Gallaba</u> , and S. McIntosh, “The Impact of the Adoption of Continuous Integration on Developer Attraction and Retention”, In <i>Proceedings of the 14th International Conference on Mining Software Repositories (MSR), Mining challenge</i> , pp. 491–494, May 2017.	
	FULL PAPERS IN INTERNATIONAL WORKSHOPS	
	[CeBPM12] <u>K. Gallaba</u> , U. Pavalanathan, I. Jayawardena, E. Sooriyabandara, V. Nanayakkara, “Levi — A Workflow Engine Using BPMN 2.0”, Workshop on Cloud-enabled Business Process Management (CeBPM 2012), Paphos, Cyprus, pp. 92–104 Nov 2012.	