Keheliya Galaba

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

SUMMARY
- Software development experience at *Microsoft Research, Fortinet,* and *WSO2*
- Expertise in *JavaScript/Node.js* & *Python* backend development, tool development for programmers
- Published at top-tier *Software Engineering* research journals & conferences (TSE, ASE, ESEM, MSR)

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.

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: Continuous Deployment.

MENTORING & TEACHING EXPERIENCE

Undergraduate Students (Co-advised with S. 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
  - **ECSE321** Introduction to Software Engineering — Fall 2017
- University of British Columbia, Vancouver, BC, Canada
  - **EECE416** Software Testing and Analysis — Winter II 2014
  - **EECE310** Software Engineering — Winter II 2013 & Winter I 2014

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)	May 2018

AWARDS &
RECOGNITION

- ▪ FRQNT Doctoral Research Award (Bourses de doctorat en recherche) May 2018
  Ranked #1 in the ICT group and obtained the competitive scholarship provided by
  Fonds de recherche du Québec – Nature et technologies (FRQNT).

- ▪ McGill Engineering Doctoral Award (MEDA) 2016 – 2019
  Full scholarship with stipend for PhD studies at McGill University.

- ▪ Best Full Paper Award Oct 2015
  Awarded at The ACM/IEEE International Symposium on Empirical Software Engineering and Measurement.

- ▪ ISERN Student Travel Grant Oct 2015
  Awarded by The International Software Engineering Research Network (ISERN) to attend ESEM '15.

ACADEMIC
SERVICE

ARTIFACT EVALUATION COMMITTEE MEMBER

- ▪ Int'l Conf. on Object-oriented Programming, Systems, Languages, and Applications **(OOPSLA)** 2017

CO-REVIEWER

- ▪ 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

PUBLICATIONS

FULL PAPERS IN INTERNATIONAL JOURNALS

[TSE18] K. Gallaba and S. McIntosh, "Use and Misuse of Continuous Integration Features: An Empirical Study of Projects that (mis)use Travis CI," *IEEE Transactions on Software Engineering*, May 2018.

FULL PAPERS IN INTERNATIONAL CONFERENCES

[ASE18] K. Gallaba, Christian Macho, Martin Pinzger, and Shane McIntosh, "Noise and Heterogeneity in Historical Build Data: An Empirical Study of Travis CI", In *Proceedings of the International Conference on Automated Software Engineering (ASE)*, 87–97, Sep 2018.

[ICSME17] K. Gallaba, Q. Hanam, A. Mesbah, and I. Beschastnikh, "Refactoring Asynchrony in JavaScript", In *Proceedings of the International Conference on Software Maintenance and Evolution (ICSME)*, 353–363, Sep 2017.

[ESEM15] K. Gallaba, A. Mesbah, and I. Beschastnikh, "Don't Call Us, We'll Call You: Characterizing Callbacks in JavaScript", In *Proceedings of the International Symposium on Empirical Software Engineering and Measurement (ESEM)*, pp. 247–256, Oct 2015. **Best Paper Award**

SHORT PAPERS IN INTERNATIONAL CONFERENCES

[MSR18a] N. Rabbani, M. S. Harvey, S. Saquif, K. Gallaba, and S. McIntosh , "Revisiting "Programmers' Build Errors" in the Visual Studio Context", In *Proceedings of the 15th International Conference on Mining Software Repositories (MSR), Mining challenge*, pp. 98–101, May 2018.

[MSR18b] "Do Software Engineers Use Autocompletion Features Differently Than Other Developers?", R. Amlekar, A. F. R. Gamboa, K. Gallaba, and S. McIntosh In *Proceedings of the 15th International Conference on Mining Software Repositories (MSR), Mining challenge*, pp. 86–89, May 2018.

[MSR17a] M. Manglaviti, E. Coronado-Montoya, K. Gallaba, and S. McIntosh, "An Empirical Study of the Personnel Overhead of Continuous Integration", In *Proceedings of the 14th International Conference on Mining Software Repositories (MSR), Mining challenge*, pp. 471–474, May 2017.

[MSR17b] Y. Khan, Y. Gupta, K. Gallaba, and S. McIntosh, "The Impact of the Adoption of Continuous Integration on Developer Attraction and Retention", In *Proceedings of the 14th International Conference on Mining Software Repositories (MSR), Mining challenge*, pp. 491–494, May 2017.

FULL PAPERS IN INTERNATIONAL WORKSHOPS

[CeBPM12] K. Gallaba, 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.

[*CV compiled on 2018-09-22*]