

Vaastav Anand

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<https://vaastavanand.com/>

EDUCATION	<i>PhD</i> , Computer Science	2020-current
	Max Planck Institute for Software-Systems (MPI-SWS), Saarbruecken, Germany	
	<i>MSc</i> , Computer Science	2018-2020
	University of British Columbia, Vancouver, Canada	
	Thesis: Dara the explorer : coverage based exploration for model checking of distributed systems in Go	
	<i>BSc</i> , Computer Science	2013-2018
	University of British Columbia, Vancouver, Canada	
Employment	<i>Research Intern</i> , MPI-SWS	2019
	<i>Graduate Teaching Assistant</i>	2018-2019
	University of British Columbia, Department of Computer Science	
	• 1 semester TA for Graduate Operating Systems (CPSC 508)	2019
	• 1 semester TA for Distributed Systems (CPSC 416)	2018
	<i>Academic Assistant</i>	2018
	Vancouver Summer Program	
	• Teaching Assistant for the Algorithms and the World Wide Web course.	
	<i>Undergraduate Research Assistant</i>	2018
	University of British Columbia, Under Ivan Beschastnikh	
	• Designed and developed Dara, a tool for model checking distributed systems.	
	<i>Software Engineering Intern</i>	2017
	NVIDIA - MODS (Modular Diagnostics) Team	
	• Implemented memory repair sequences for faulty High Bandwidth Memory (HBM).	
	• Designed, developed and implemented a CUDA based full memory stress test.	
	<i>Software Engineering Intern</i>	2016
	NVIDIA - MODS (Modular Diagnostics) Team	
	• Implemented a synchronization option for CUDA based linpack tests to synchronize CUDA kernel launches within 30us across multiple GPUs.	
	<i>Software Developer Intern</i>	2015-2016
	Thinkbox Software - Sequoia Team	
	• Designed, developed and implemented the 3D PDF export option in Sequoia.	
	<i>Undergraduate Teaching Assistant</i>	2014-2018
	University of British Columbia, Department of Computer Science	
	• 1 semester TA for Introduction to Software Engineering (CPSC 210)	2018
	• 1 semester TA for Advanced Operating Systems (CPSC 415)	2017
	• 1 semester TA for Intermediate Algorithm Design and Analysis (CPSC 320)	2017
	• 1 semester TA for Computer Hardware and Operating Systems (CPSC 313)	2016
	• 1 semester TA for Introduction to Computer Systems (CPSC 213)	2015
	• 3 semesters TA for Models of Computation (CPSC 121)	2014-2015

Publications

Papers

Vaastav Anand, Antoine Kaufmann, Deepak Garg, Jonathan Mace. *Millenial: Modular Microservice Macrobenchmarks*. In *Preparation*

Lei Zhang, Vaastav Anand, Zhiqiang Xie, Ymir Vigfusson, Jonathan Mace. *The Benefit of Hindsight: Tracing Edge Cases in Distributed Systems*. To appear in *Networked Systems Design and Implementation, NSDI 2023*

Vaastav Anand, Zhiqiang Xie, Matheus Stolet, Roberta De Viti, Thomas Davidson, Reyhaneh Karimipour, Safya Alzayat, Jonathan Mace. *The Odd One Out: Energy is not like Other Metrics*. In *HotCarbon 2022*

Vaastav Anand*, Puneet Mehrotra*, Daniel Margo*, Margo Seltzer. *Smooth Kronecker: Solving the Combing Problem in Kronecker Graphs*. In *Joint Workshop on Graph Data Management Experiences and Systems (GRADES) and Network Data Analytics (NDA) 2020*

Vaastav Anand, Matheus Stolet, Thomas Davidson, Ivan Beschastnikh, Tamara Munzner, and Jonathan Mace. *Aggregate-driven trace visualizations for performance debugging*. *arXiv 2020*

Pedro Las-Casas, Giorgi Papakerashvili, Vaastav Anand, Jonathan Mace. *Sifter: Scalable Sampling for Distributed Traces, without Feature Engineering*. *Symposium on Cloud Computing 2019*

Posters

Vaastav Anand, Antoine Kaufmann, Deepak Garg, Jonathan Mace. *Millenial: Modular Microservice Macrobenchmarks*. At *Operating Systems Design and Implementation, OSDI 2022*

Vaastav Anand. *Millenial: Modular Microservice Macrobenchmarks*. At *Eurosys Doctoral Workshop, EuroDW 2021*

Datasets

Vaastav Anand. *Fantasy Premier League Gameweek-By-Gameweek Dataset*. <https://github.com/vaastav/Fantasy-Premier-League>

Vaastav Anand and Jonathan Mace. *X-Trace trace dataset for DeathStarBench*. https://gitlab.mpi-sws.org/cld/trace-datasets/deathstarbench_traces

Student Research Competitions

Vaastav Anand. *Millenial: Modular Microservice Macrobenchmarks*. At *Symposium on Operating Systems Principles, SOSP 2021*

Vaastav Anand. *Dara: Hybrid Model Checking of Distributed Systems*. At *The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, ESEC/FSE 2018, Lake Buena Vista, Florida, USA. (SRC)*

Awards	<i>SoCC Student Scholarship</i> 2019 <i>2nd Place, FSE'18 SRC</i> 2018 <i>SIGSOFT CAPS Award</i> 2018 <i>UBC International Tuition Award</i> 2018-2019 <i>Work Learn International Undergraduate Research Award</i> 2018 <i>UBC Faculty of Science, International Student Award</i> 2015, 2018 <i>ACM ICPC PacNW Regional Contest Division 2 Champion</i> 2017 <i>UBC Trek Excellence Scholarship</i> 2016-17, 2017-2018 <i>UBC Dean's Honor List</i> 2014, 2015, 2017 <i>UBC Computer Science Student Service Award</i> 2015 <i>GIIS Global Citizen Scholarship</i> 2011-2013
Service	<i>Academic Service</i> <ul style="list-style-type: none"> • Program Committee Member <ul style="list-style-type: none"> – CS-Can Student Symposium 2019 • Publicity Chair <ul style="list-style-type: none"> – The Journal of Systems Research 2022-2023. • Systems Trivia Co-Organizer <ul style="list-style-type: none"> – HotOS 2021 – OSDI 2021 • Sub-Reviewer for Prof. Ivan Beschastnikh <ul style="list-style-type: none"> – ESEM 2018, ESEC/FSE NIER 2018, Elseiver IST 2019 • Sub-Reviewer for William Anthony Mason <ul style="list-style-type: none"> – SIGCSE 2019
Skills	<i>Programming Languages:</i> C++, Go, Python, C, Bash, JavaScript, Java, CUDA <i>Tools:</i> IntelliJ, GDB, Eclipse, Visual Studio, Git, Perforce, Vim, L ^A T _E X
Selected Non-Research Projects	<i>Distributed Clocks</i> 2018-2020 Inter-operable vector clock logging library <ul style="list-style-type: none"> • Distributed clocks implements vector clocks in Go, Java, C++ and C • https://github.com/DistributedClocks <i>eTone</i> 2017-2018 <ul style="list-style-type: none"> • A tone matching game created to measure the brain myelination in people while learning tonal languages. • Member of the Language Sciences Initiative Communicating Mind and Body Working Group.

Interests

Computing: Distributed Systems, Operating Systems, Software Engineering
Extra Curricular: Soccer, Languages, Cricket.