

KRISHNA VAIDYANATHAN

DC 2569
University of Waterloo
200 University Avenue W, Waterloo ON N2L 3G1

kvaidyan@uwaterloo.ca
<https://cs.uwaterloo.ca/~kvaidyan>

CURRENT POSITION

Second year student of the Master of Mathematics (Thesis) program at the Cheriton School of Computer Science, University of Waterloo, Canada.

AREAS OF INTEREST

Reconfiguration problems, parameterized algorithms, and graph coloring.

EDUCATION

University of Waterloo , Waterloo, Canada <i>M.Math (Thesis), Computer Science</i>	Sep 2015 – May 2017 (expected) CGPA: 90.20/100
PSG College of Technology , Coimbatore, India <i>Integrated M.Sc, Theoretical Computer Science</i>	Jun 2010 – May 2015 CGPA: 8.62/10

RESEARCH EXPERIENCE

Project Assistant - University of Waterloo, Canada Supervisor: Prof. Robin Cohen <ul style="list-style-type: none">Extended a course project on Opinion Dynamics in Agent Research to a paper.	Jan, 2016 – July, 2016
Research Assistant - University of Waterloo, Canada Supervisor: Prof. Naomi Nishimura <ul style="list-style-type: none">Working on reconfiguration problems in graph coloring.	Sep, 2015 – present
Summer Intern - Indian Statistical Institute, Chennai, India Supervisor: Dr. Mathew C. Francis <ul style="list-style-type: none">Worked on a few problems in contact graphs of L-shapes in the plane and B_k-VPG graphs.	May, 2014 – July, 2014
Research Intern - Indian Institute of Science, Bangalore, India Supervisor: Prof. L. Sunil Chandran <ul style="list-style-type: none">Investigated rainbow matchings in the class of strongly edge-colored graphs and found a bound on the maximum rainbow matchings in terms of its minimum degree.	May, 2013 – Nov, 2014

INDUSTRY EXPERIENCE

Software Development Engineer Intern - Amazon Development Center, Chennai <ul style="list-style-type: none">Developed an internal tool to static analyze codebases by generating a graph of dependencies and isolating sections of the code that is affected by check-ins.Worked extensively on Facebook's pfff tool and added features to enrichen the graph generated by pfff.Ported the graph from pfff to TitanDB, a graph database, and wrote queries to derive insights from it.Code: https://github.com/krishnavaidy/pfff	Jan 2015 – July, 2015
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WORKSHOPS ATTENDED

Combinatorial Reconfiguration - BIRS, Banff <ul style="list-style-type: none">The workshop is aimed to provide a opportunity for joint discussion by researchers in reconfiguration from all over the world, and is organized by Takehiro Ito (Tohoku University), Amer E. Mouawad (University of Bergen), and Naomi Nishimura (University of Waterloo).	Jan 23, 2017 – Jan 27, 2017 (planned)
ASPAK - IMSc, Chennai <ul style="list-style-type: none">The Advanced School on Parametrized Algorithms and Kernelizations (ASPAK) is a one week intensive school on parametrized algorithms and kernelization, and was organized by Venkatesh Raman, Saket Saurabh, and Neeldhara Misra of the Institute of Mathematical Sciences (IMSc), Chennai.	Mar 3, 2014 – Mar 8, 2014

PUBLICATIONS

- Robin Cohen, Alan Tsang, Krishna Vaidyanathan, Haotian Zhang. "Analyzing Opinion Dynamics in Online Social Networks". Accepted, to appear in BigDIA (Big Data and Information Analytics).
- Jasine Babu, L. Sunil Chandran, Krishna Vaidyanathan. "Rainbow matchings in strongly edge-colored graphs". Discrete Mathematics 338.7 (2015): 1191-1196.

TECHNICAL SKILLS

Languages : OCaml, Python
Platforms : Linux, Windows
Tools : MATLAB, L^AT_EX, Coq, MySQL

AWARDS

- Recipient of the *University of Waterloo Graduate Scholarship*.
- Adjudged the *Best All Rounder* for the class of 2015 by PSG College of Technology.
- Selected for the *Indian Academy of Science Summer Research Fellowship*.

EXTRA CURRICULAR ACTIVITIES

- *Graduate Ambassador* for the Cheriton School of Computer Science, University of Waterloo. I answered queries from prospective graduate students about course load, research areas, student life, etc.
- Completed levels N5 and N4 in the *Japanese Language Proficiency Test*.