## Krishna Vaidyanathan

Contact

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Information

Cheriton School of Computer Science

University of Waterloo 200 University Avenue West Waterloo, Ontario, Canada

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CURRENT POSITION First year student of the M.Math program at the Cherition School of Computer Science, University of Waterloo.

ACADEMIC Interests

Algorithms, graph theory, and functional programming languages.

**EDUCATION** 

University of Waterloo, Canada

September, 2015 - May, 2017 (expected)

(M.Math Computer Science) PSG College of Technology, Coimbatore (M.Sc. Theoretical Computer Science)

June, 2010 - May, 2015 (8.62/10)

Industry EXPERIENCE • Jan - July, 2015: SDE Intern, Amazon Development Center, Chennai, India. Worked on an internal tool to static analyze codebases by generating a graph of dependencies and isolates sections of the code that is affected by check-ins. Worked extensively on Facebook's pfff adding features relevant to the project, which was used to static code analyze. Also ported the graph from facebook/pfff to TitanDB, and wrote queries to derive insights from the graph. Code: https://github.com/krishnavaidy/pfff

Research EXPERIENCE

- Sep, 2015 present: Research Assistant, University of Waterloo, Canada. Working on reconfiguration algorithms in list edge-coloring with Prof. Naomi Nishimura.
- May July, 2014: Summer Intern, Indian Statistical Institute Chennai, India. Worked under the guidance of Dr. Mathew C. Francis. Worked on a few problems in Contact graphs of L-shapes in the plane and  $B_k$ -VPG graphs.
- May November, 2013: Research Intern, Indian Institute of Science, Bangalore, India. Worked under the guidance of Prof. L. Sunil Chandran. 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.
- Jan, 2013 April, 2014: Worked on the problem of counting triangulations in non convex polygons with **Prof. R.S. Lekshmi** (*PSG College of Technology*).
- May June, 2012: Summer Intern, Institute of Mathematical Sciences, Chennai, India. During this period, attended lectures and programming classes on various important topics of Theoretical Computer Science.

**PUBLICATIONS** 

• Jasine Babu, L. Sunil Chandran, Krishna Vaidyanathan. "Rainbow matchings in strongly edgecolored graphs." Discrete Mathematics 338.7 (2015): 1191-1196.

Workshops ATTENDED

- March 3<sup>rd</sup> 8<sup>th</sup>, 2014: Attended the "Advanced School on Parametrized Algorithms and Kernelizations" (ASPAK), a one week intensive school on parametrized algorithms and kernelization at the *Institute of Mathematical Sciences (IMSc)*, Chennai.
- May 21st 31st, 2012: Attended the workshop "Network Optimization and Security" conducted by IMSc, Chennai.

COMPUTER Languages : OCaml, Python. PROFICIENCY Backend : MySQL.

Platform : Linux, Windows. Tools : MATLAB, LaTex.

EXTRACURRICULAR ACTIVITES

EXTRACURRICULAR • Completed levels N5 and N4 in the "Japanese Language Proficiency Test" and pursuing level N3.

• Active Toastmaster at the Coimbatore Toastmasters Club.

LINKS • Github: https://github.com/krishnavaidy

• LinkedIn: https://www.linkedin.com/in/krishna-vaidyanathan-07663636