

Krishna Vaidyanathan

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EDUCATION

UNIVERSITY OF WATERLOO

M.MATH IN COMPUTER SCIENCE

Sep 2015 - Aug 2017 | Waterloo,
Canada

PSG COLLEGE OF TECHNOLOGY

INTEGRATED M.SC. IN THEORETICAL
COMPUTER SCIENCE

June 2010 - Aug 2015 | Coimbatore,
India

LINKS

Github:// [krishnavaidy](#)

LinkedIn:// [krishna.vaidyanathan](#)

COURSEWORK

GRADUATE

Experimental OS Techniques

Design & Analysis of Algorithms

Trust Modeling & Online Social Networks

UNDERGRADUATE

Machine Learning

Operating Systems

Parallel & Distributed Computing

SKILLS

PROGRAMMING

Python • JavaScript • Shell •

Java • MATLAB

TOOLS

React • Django • Express •

Docker • neo4j

CLOUD

AWS • DigitalOcean • Azure •

GCP

AWARDS

2017 Outstanding TA Award
(University of Waterloo)

2015 Best All Rounder
(PSG College of Technology)

EXPERIENCE

COINSQUARE MINING | FULL STACK DEVELOPER

May 2018 - Aug 2018 | Toronto, Canada

- Developed from scratch and managed an app (backend: Django; frontend: React) to buy and monitor orders, using Celery, on NiceHash; this lead to increased profitability.
- Added merged-mining support to the open source library `node-merged-pooler`; this lead to a potential increase in profits at no additional cost.

BENCHSCI | BACKEND ENGINEER

Sep 2017 - April 2018 | Toronto, Canada

- Managed a web crawler; parallelized the crawler leading to a 10X speed increase.
- Designed webpages using Django and React; helped decouple the frontend from the backend leading to increased code reusability.
- Wrote and optimized queries for neo4j; increased the speed of queries by 5X.
- Interfaced with (and created a few) RESTful APIs.

AMAZON | SDE INTERN

Jan 2015 - July 2014 | Chennai, India

- 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 on Facebook's pfff tool and added features to enrichen the graph generated by pfff.
- Ported graph from pfff to TitanDB, a graph database, and wrote queries to derive insights from it.

RESEARCH

ALGORITHMS & COMPLEXITY LAB, UNIVERSITY OF WATERLOO

| RESEARCH ASSISTANT

Sep 2015 - Aug 2017 | Waterloo, Canada

Formulated problems in reconfiguration of colorings - specifically acyclic and equitable colorings - and developed algorithms and complexity results for the same.

PUBLICATIONS

- Tesshu Hanaka, Takehiro Ito, Haruka Mizuta, Benjamin Moore, Naomi Nishimura, Vijay Subramanya, **Krishna Vaidyanathan**. "Reconfiguring spanning and induced subgraphs". Computing and Combinatorics 438 (2018).
- **Krishna Vaidyanathan**. "Reconfiguring Graph Colorings". MS thesis. University of Waterloo (2017).
- Robin Cohen, Alan Tsang, **Krishna Vaidyanathan**, Haotian Zhang. "Analyzing Opinion Dynamics in Online Social Networks". BigDIA (Big Data and Information Analytics) (2016).
- Jasine Babu, L. Sunil Chandran, **Krishna Vaidyanathan**. "Rainbow matchings in strongly edge-colored graphs". Discrete Mathematics 338.7 (2015).