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ZACHARY LANGLEY

- education** ROCHESTER INSTITUTE OF TECHNOLOGY. *Rochester, NY.*
Bachelor of Science, Computer Science, 2014.
- publications** Ivona Bezáková and Zachary Langley. *Minimum planar multi-sink cuts with connectivity priors.* International Symposium on Mathematical Foundations of Computer Science (MFCS). Springer, Berlin, Heidelberg, 2014.
Ivona Bezáková and Zachary Langley. *Contiguous minimum single-source-multi-sink cuts in weighted planar graphs.* International Computing and Combinatorics Conference (COCOON). Springer, Berlin, Heidelberg, 2012.
- research experience** UNIVERSITY OF ROCHESTER, *Rochester, NY.* Summer 2012
Research Experience for Undergraduates (REU) student.
 - Supervised by Professor Daniel Štefankovič.
 - Studied Markov chains to develop fast algorithms for sampling and counting various combinatorial objects, including self-organizing lists and graph colorings.ROCHESTER INSTITUTE OF TECHNOLOGY, *Rochester, NY.* Summer 2011
Center for Student Innovation Undergraduate Summer Research and Innovation Fellowship.
 - Supervised by Professor Ivona Bezáková.
 - Designed and analyzed optimization and counting algorithms for problems in planar graphs.
- professional experience** COLOR GENOMICS. *Burlingame, CA.* Software Engineer. 2017–present
 - Developed clinically validated pharmacogenomics software which determines the efficacy of someone’s medications based on their DNA.
 - Rearchitected the software and database schema that supports clients from enterprise partners.OPERATOR. *San Francisco, CA.* Software Engineer. 2015–2017
 - Built Operator’s iOS app from the ground up and subsequently led the development of the app.TWITTER. *San Francisco, CA.* Software Engineer. 2013–2015
 - Implemented Twitter’s ad rendering natively in iOS, improving the user experience and allowing faster and easier development of new advertising templates.
 - Developed and shipped numerous A/B tests to experimentally validate product features in Twitter’s iOS app.
 - Refactored monolithic software components for extensibility and code readability.

GOOGLE. *Cambridge, MA*. Software Engineer Intern. Summer 2013

- Worked on the Google Flights team and developed internal tools to improve analytics capabilities.

ROCHESTER INSTITUTE OF TECHNOLOGY. *Rochester, NY*. 2011–2013

Computer Science Theory Tutor.

- Held roughly six office hours per week to tutor graduate and undergraduate students in algorithms, computability theory, complexity theory, and cryptography.

honors
& awards

Center for Student Innovation Undergraduate Summer Research and Innovation Fellowship Recipient (\$3000)

B. Thomas Golisano College of Computer and Information Sciences Research Seed Funding Recipient (\$1000)

Placed 3rd, 6th, 3rd in the ACM-ICPC Northeast North America Regional Finals in 2010, 2011, 2012

coursework

Advanced Algorithms:
Markov Chain Monte Carlo

Advanced Algorithms:
Combinatorial Computing

Cryptography I & II

Complexity & Computability

Combinatorial Mathematics

Abstract Algebra I & II

Topology

Real Variables

Number Theory