

Kumar Thurimella

Website: kthurimella.github.io
Email: kthurimella@gmail.com
LinkedIn: [kumarthurimella](https://www.linkedin.com/in/kumarthurimella)
GitHub: github.com/kthurimella

EDUCATION

University of Cambridge

Ph.D. in Biotechnology | Statistics

Cambridge, UK

Oct 2020–Current

- Advisors (Cambridge): Roisin Owens (Biotechnology), Sergio Bacallado (Stats Lab/Mathematics)
- Advisor (Harvard Medical School): Ramnik Xavier (Broad Institute)
- Research Interests: Applied Statistical Learning, Microbiome, Inflammation, GI disease, Metabolomics

University of Colorado, School of Medicine

M.D. Candidate, Advisor: Cathy Lozupone

Denver, CO

Aug 2018–Current

University of Cambridge

M.Phil. in Computational Biology (Biological Sciences), Advisor: Gosia Trynka

Cambridge, UK

Oct 2017–Aug 2018

- Thesis: “Evaluating the Efficacy of Epigenetic Imputation in CD4+ Regulatory T Cells”

University of Colorado, Boulder

B.S. in Applied Mathematics, *Magna Cum Laude*, Advisor: Rob Knight

Boulder, CO

Aug 2009–Aug 2013

- Thesis: “Using Rule Induction to Elucidate Co-Occurrence Patterns in Microbial Data”

EXPERIENCE

Uber Technologies

Software Engineer II

San Francisco, CA

Mar 2015–Aug 2017

- Using a heuristic recursive backtracking algorithm, built an auto-scheduler to schedule all incoming candidates for Uber, that sits atop our own custom Applicant Tracking System
- Python, Flask, Tornado, React.js

ThoughtWorks

Junior Software Developer

San Francisco, CA

Apr 2014–Mar 2015

- Developed software as a consultant, building and maintaining web applications for clients
- Java, Spring

PUBLICATIONS

- [1] **K. Thurimella, M. Shaffer**, and C. A. Lozupone, “SCNIC: Sparse Correlation Network Investigation for Compositional Data”, Cold Spring Harbor Laboratory, Nov. 2020. eprint: <https://www.biorxiv.org/content/early/2020/11/16/2020.11.13.380733.full.pdf>, *Joint first authors with equal contributions*.
- [2] M. Shaffer, **K. Thurimella**, K. Quinn, K. Doenges, X. Zhang, S. Bokatzian, N. Reisdorph, and C. A. Lozupone, “Amon: Annotation of metabolite origins via networks to integrate microbiome and metabolome data”, *BMC bioinformatics*, vol. 20, no. 1, pp. 1–11, 2019.

RESEARCH EXPERIENCE

Cathy Lozupone Lab - University of Colorado School of Medicine

Denver, CO

Research Track Medical Student

Sep 2018–Oct 2020

- Developed software to integrate metabolomics data with microbiome data to predict the origin of metabolites (from the host of microbes)

Gosia Trynka Lab - Wellcome Sanger Institute

Cambridge, UK

MPhil Research Student

Sep 2017–Aug 2018

- Developed software to examine and benchmark epigenetic imputation for rare immune cell types (Tregs)

Rob Knight Lab - University of Colorado Boulder

Boulder, CO

Undergraduate Research Student

Aug 2012–Aug 2013

- Developed software to examine and ultimately tease out co-occurrence patterns within microbial data. Focused on a data mining technique, known as association rule mining, to mine higher dimension co-occurrences

PRESENTATIONS

- Kumar Thurimella, Michael Shaffer PhD, Cathy Lozupone PhD, Employing Metabolomics and Microbiome Data to Build Algorithm for Interrogating Host-Microbe Interactions (Oral), National MD/PhD Conference 2020
- Kumar Thurimella, Michael Shaffer PhD, Cathy Lozupone PhD, Employing Metabolomics and Microbiome Data to Build Algorithm for Interrogating Host-Microbe Interactions (Oral), Western Medical Research Conference, Carmel, CA 2020
- Kumar Thurimella, Lara Bossini-Castillo PhD, Gosia Trynka PhD, Using ChromImpute to Recover Lost Epigenetic Signal in Rare Immune Cells (Oral), Sanger Institute Research Forum, Hinxton, UK 2018
- Kumar Thurimella, Fang Liu PhD, Applying a Recursive Backtracking Heuristic to Solve Scheduling Problems (Oral) Uber Technology Talk, San Francisco, CA 2017
- K. Kumar Thurimella, Jose Clemente PhD, Rob Knight PhD, Rule Induction: Classification of the Microbiome (Oral), Norlin Scholars Conference, Boulder, CO 2013

SCHOLARSHIPS AND AWARDS

- Gates Cambridge Scholarship (£48,313/year) 2020–2024
 - [Combining Maths and Medicine](#)
 - [CU Medical Student Wins \\$250,000 Scholarship](#)
 - [Kumar Thurimella Awarded Gates-Cambridge Scholarship | Applied Mathematics](#)
 - [Gates Cambridge Class of 2020](#)
- Rotary International Scholarship (\$30,000) 2020–2024
- Dr. Henry Christian Award, American Federation for Medical Research - Most Outstanding Abstract 2019
- Cambridge University Entrepreneurs Competition Finalist 2018
- Wellcome Trust Departmental Award Full Scholarship, University of Cambridge (£39,029/year) 2017
- Norlin Scholars Scholarship (\$4,000/year) 2011–2013
- Engineering Merit Scholarship (\$2,000/year) 2009–2013
- National Institute of Standards and Technology (NIST) Prep Scholarship (Full Tuition + Stipend) 2010–2011