

Kumar Thurimella

16090 E. Maplewood Dr. Centennial, CO 80016
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<https://www.linkedin.com/in/kumarthurimella/>

EDUCATION

University of Cambridge

Cambridge, UK — 10/2020-Present

Ph.D. Biotechnology | Mathematics and Statistics

[CU Medical Student Wins \\$250,000 Scholarship](#)

[Kumar Thurimella Awarded Gates-Cambridge Scholarship | Applied Mathematics](#)

[Gates Cambridge Class of 2020](#)

University of Colorado-School of Medicine

Aurora, CO — 8/2018-Present

M.D. Candidate

University of Cambridge

Cambridge, UK — 10/2017-7/2018

M.Phil. Computational Biology (Biological Sciences) - Full Research Course

Wellcome Sanger Institute

Graduate Thesis:

Evaluating the Efficacy of Epigenetic Imputation in CD4⁺ Regulatory T Cells

Thesis Advisor: Gosia Trynka, Ph.D.

University of Colorado-Boulder *Magna Cum Laude*

Boulder, CO — 8/2009-8/2013

B.S. Applied Mathematics, Minor Biochemistry

College of Engineering and Applied Science

Undergraduate Honors Thesis:

Using Rule Induction to Elucidate Co-Occurrence Patterns in Microbial Data

Thesis Advisor: Rob Knight, Ph.D.

EXPERIENCE

Software Engineer II, Uber Technologies

San Francisco, CA — 3/2015-8/2017 (**Python, Flask, Tornado, React.js**)

- 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

Junior Software Developer, ThoughtWorks

San Francisco, CA — 4/2014-3/2015 (**Java, Spring**)

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

RESEARCH EXPERIENCE

Research Track Student, Cathy Lozupone Lab (University of Colorado - School of Medicine)

Aurora, CO — 9/2018-Current (**Python**)

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

Graduate Student, Gosia Trynka Lab (University of Cambridge)

Cambridge, UK — 9/2017-8/2018 (**Python + Python 3 Libraries**)

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

Undergraduate Research Assistant, Rob Knight Lab (University of Colorado - Boulder)

Boulder, CO — 8/2012-8/2013 (**Python, SciPy, NumPy**)

- 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.

PUBLICATIONS

- Shaffer, M., **Thurimella, K.**, Quinn, K., Doenges, K., Zhang, N., Bokatzian, S., Reisdorph, N. and Lozupone, C., 2019. AMON: Annotation of metabolite origins via networks to integrate microbiome and metabolome data. **BMC Bioinformatics**, 2019;20(1):614. Published 2019 Nov 28. doi:10.1186/s12859-019-3176-8 PMID: 31779604
- Shaffer, M.*, **Thurimella, K.*** and Lozupone, C., 2019. SCNIC: Sparse Correlation Network Investigation for Compositional Data., *In Preparation* *joint first-authorship contributions

PRESENTATIONS

- 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, 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

LEADERSHIP ACTIVITIES

Student Body President of Engineering and Applied Science, CU Student Government

Boulder, CO — 4/2011-5/2013

- Managed a \$65,000 budget
- Design referendum & policies, review student fee budgets, and compose legislation

AWARDS

- Gates Cambridge Scholarship 2020 (£48,313/year) (2020-2024)
- Dr. Henry Christian Award, American Federation for Medical Research - most outstanding abstract (Winter 2019)
- Cambridge University Entrepreneurs Competition Finalist (Spring 2018)
- Wellcome Trust Departmental Award Full Scholarship for University of Cambridge (£39,029/year) (2017-2018)
- Norlin Scholars scholarship for collegiate merit/achievement (\$2,000/semester) (Fall 2011 – Spring 2013)
- Engineering Merit Scholarship (\$1,000/semester) (Fall 2009 – Spring 2013)
- NIST Prep Scholarship (Full Tuition + Stipend) (Fall 2010 - Fall 2011)