

Gregory Raskind

Programmer Analyst at the Michigan Center for
Translational Pathology

📍 1040 Island Drive Ct Apt 101 Ann Arbor, MI 48105
☎ 734-925-1731
✉ graskind@umich.edu

Education

University of Michigan

2015 - 2019

Bachelors of Science in Biochemistry and Mathematical Biology

Minor in Computer Science

GPA: 3.939/4.000

Relevant Coursework:

Bioinformatics Concepts and Algorithms, Differential Equations, Real Analysis, Linear Algebra, Multi-Variable Calculus, Probability, Combinatorics, Topology, Mathematical Modelling in Biology, Data Structures and Algorithms, Web Systems

Organic Chemistry I and II, Advanced Biochemistry I and II, Biophysical Chemistry, Brain Development, Mechanics, Electromagnetism, Introductory Statistical Methods

Publications

Zhang et al., "Single Cell Sequencing of Renal Carcinomas" (fourth author, manuscript in preparation)

Research Experience

Chinnaiyan Lab

Michigan Center for Translational Pathology (June 2018-Present)

- Performed bioinformatic analyses on a variety of big data sets, including bulk RNA sequencing data (e.g. GSEA) and whole genome sequencing data.
- Maintained, extended, and automated a pipeline for analyzing single cell RNA sequencing (scRNA-seq) data.
- Developed an interactive web application for annotating scRNA-seq data and performing differential expression analysis.
- Learned how to use, create, and interpret many common figures used in the analysis of sequencing data.
- Gained experience with docker, remote work, and cloud computing.
- Currently manage initial processing of scRNA-seq data and work with the single cell and bioinformatics groups on projects in Prostate and Kidney Cancer.

Big Data Summer Institute (BDSI)

University of Michigan (June 2017 - August 2017)

- Assisted in the development of a genome assembly program.
- Attended a lecture series on various advanced topics in statistics, bio-statistics, computer science, and mathematics.
- Acquired programming techniques in C++, genome assembly, and different sequencing technologies.
- Built a DeBruijn graph of the human reference genome and a variant graph using FASTQ data for chromosome 22.
- Continued project after the conclusion of the institute, working on the program interface and error pruning of the variant graph for low coverage k-mers.

Computer Skills

- Extensive knowledge of C++ through research and coursework.
- Proficiency in R along with working knowledge of a multitude of Bioconductor packages
- Web development (see <https://graskind.github.io/anitim-photography/> for an example).
- Experience with Linux, Python, JSON, JavaScript, HTML, Css, Bash scripting, Git, LaTeX, and R markdown

Honors and Awards

Phi Beta Kappa National Honor Society

2019 - Present

For "exceptional academic achievement in the arts and sciences"

Outstanding Achievement in Mathematics Award

2019

For "excellent and consistent work in mathematics courses and contributions to the study of Mathematics at Michigan"

Michigan Competitive Scholarship

2018

McCarthy Family Scholarship	2018
Sophomore Honors Award	2017
For "outstanding achievement and engagement in the first two years" of undergraduate education.	
University Honors	2015 - 2017
Ginsberg Math Scholarship	2017
Mary Margaret Soderman Memorial Scholarchip	2017
James B. Angell Scholar	2017/2018
William J. Branstrom Freshman Prize	2016

Jobs

Camp Counselor	June 2019 - August 2019
Michigan Math and Science Scholars	
<ul style="list-style-type: none"> Planned and led activities with campers. Was responsible for 10-18 kids in three separate sessions. 	
Tutor	June 2018 - Present
Varsity Tutors	
<ul style="list-style-type: none"> Worked one-on-one with students in various subjects such as Algebra 2, Calculus 1, Statistics, and Programming. 	
Grader for Probability Course (Math/Stats 425)	July 2018 - August 2018
University of Michigan Math Department	
<ul style="list-style-type: none"> Determined problems to grade for correctness, assigned points, and input the grades for homework assignments. 	
Grader for Introductory Statistics Course (Stats 250)	Jan 2018 - April 2018
University of Michigan Statistics Department	
<ul style="list-style-type: none"> Graded online homework for an Introductory Statistical Methods class with approximately 1,000 student enrolled. Proctored and graded exams. 	
Math tutor	Sept 2016 - April 2018
University of Michigan Math Lab	
<ul style="list-style-type: none"> Tutored students in subjects ranging from Functions and Graphs to Differential Equations and Probability. 	

Activities and Volunteer Work

Laboratory Assistant	June 2018 - August 2019
Chinnaiyan Lab	
<ul style="list-style-type: none"> Worked full time as a volunteer at the Chinnaiyan Lab for two months before transitioning to a paid position. 	
Volunteer Tutor	January 2018 - April 2018
Wolverine Tutors	
<ul style="list-style-type: none"> Volunteered at Pathways to Success Academic Campus to teach students from disadvantaged backgrounds high school chemistry. 	
Mushing	Sept 2013 - Dec 2015
Otter River Sled Dog Training Center and Wilderness Adventures	
<ul style="list-style-type: none"> Fed, trained, and took care of dogs in a kennel that competed in sled-dog races. Finished 9th in the Copper Dog 40. 	

Languages

- Russian - Native language, fluent
- English - Fluent
- Spanish - Some elementary conversation