Benjamin Mikek

Klaus Advanced Computing Building #2319
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1 October 2021

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Education

- **Georgia Institute of Technology** — Atlanta, GA, USA
  Ph.D. in Computer Science — *In progress since Fall 2021*
  - Advisor: Dr. Qirun Zhang

- **Grinnell College** — Grinnell, IA, USA
  Bachelor of Arts in Computer Science & Mathematics, with honors — *May 2021*
  - GPA: 3.83/4.00 (4.00/4.00 in Computer Science courses)
  - Selected courses: Automata & Complexity, Organization & Architecture, Numerical Analysis

- **Budapest Semesters in Mathematics** — Budapest, Hungary
  Off-campus study program at the Rényi Institute of Mathematics — *Fall 2019*
  - Courses: Topology, Set Theory, Theory of Algorithms, Introduction to Hungarian

Research

1. COURAGE Remote REU in Mathematics at Clemson University — Summer 2020

   - Studied computational geometry with a team of three students and a faculty mentor
   - Developed efficient algorithms to dynamically compute data depth according to two different methods
   - Presented "Dynamically Computing Simplicial Depth in Data Sets" at the 2020 COURAGE conference

2. NSF REU in Mathematics at Lamar University — Summer 2019

   - Conducted research into the intersection of matrix decomposition and graph theory
   - Worked closely with a faculty mentor and an undergraduate partner to develop a research project
   - Presented "Decompositions of the Incidence Matrices of Undirected Graphs" at the Joint Mathematics Meeting 2020 poster session

Teaching

1. Computer Science Department Mentor

   - Introduction to CS (Functional Problem Solving) — Spring 2020, Summer 2020, Spring 2021 Term I
   - Individual Mentor for Computational Linguistics — Fall 2020 Term II

2. Mathematics Department Mentor

   - Discrete Bridges to Advanced Mathematics (Number Theory) — Spring 2020

3. Computer Science Department Grader

   - Introduction to Computer Science (Functional Problem Solving) Fall 2020 Term I
   - Object-Oriented Problem Solving, Data Structures, and Algorithms Fall 2020 Term II

4. Mathematics Department Grader

   - Calculus II Fall 2018, Spring 2019
   - Linear Algebra Fall 2020 Term I & Term II

5. Physics Department Lab Mentor

   - General Physics II (Electricity & Magnetism) Spring 2019

Community Service

1. Grinnell Code Club Volunteer Spring 2019–Spring 2021

   - Prepared computer science lesson plans for fourth grade students using the Scratch language
   - Answered student questions and inspired learning about technology

2. FIRST Tech Challenge Robotics Volunteer Spring 2018–Present

   - Volunteered to help host robotics competitions for high school students
   - Advised teams on programming and electrical systems

Specialized Skills

1. Programming Languages: C#, Java (including Android development), Python (including NumPy), Haskell, Racket, C++, C, MIPS Assembly, TIBasic

2. Software: LaTeX, Wolfram Mathematica, MATLAB, QGIS, Autodesk Inventor, Adobe InDesign

3. Human Languages: English, Slovene, Spanish