Maitreyee Joshi

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EDUCATION

Northeastern University, Boston, MA — December 2021
Khoury College of Computer and Information Sciences — **GPA -** 3.5
Bachelor of Science in Mathematics and Computer Science
Relevant Coursework: Object-Oriented Design | Database Design | Web Development | Algorithms | Computer Graphics | Theory of Computation | Linear Algebra | Software Development

TECHNICAL SKILLS

Languages: Java, C++, Julia, JavaScript, SQL, React, HTML, Racket (Lisp dialect)
Software / Tools: AWS, MySQL, Git, OpenGL, DB Mongo, MATLAB
Systems: Windows, MacOS, Ubuntu

EXPERIENCE

Researcher, *Northeastern Summer Math Research Program* — Boston, MA | May 2021 – Present
- Collaborate with Ph.D. student-mentor on research topic, Modeling of Random Geometric Graphs, under the supervision of 2 research faculty members
- Co-author final paper reporting research findings to 5 Math department faulty members

Software Engineer Co-Op, *NextDroid, Inc* — Boston, MA | January 2021 — July 2021
- Developed modified Transverse Mercator projection in C++ and Julia improving processing of large/diverse data sets in Veritas, an advanced driver-assistance system for ground truth platform
- Integrated modified Transverse Mercator projection in Veritas using AWS and Docker
- Researched/Revised 6 accuracy and precision distance measures required for smooth rendering of Veritas
- Built extensive google unit test coverage for 5+ new features, including Veritas Transverse Mercator

Accounting Co-Op, *Wayfair LLC* — Boston, MA | July 2019 — December 2019
- Provided detailed technical requirements for tax engine automating 40+ tax filings with varied jurisdictions
- Prepared 35+ monthly state tax filings, accounting reconciliations, journal entries, and audit requests

PROJECTS ✂

KenKen Solver — November 2020
- Programmed SAT-based solver in Java for KenKen
- Wrote and presented paper with 3 collaborators proving correctness

Movement Simulator — September 2020
- Created pool game simulator with dynamic GUI allowing users to change, add and edit textures and interact with pool ball using OpenGL and JavaScript

Charitabl-E — July 2020 – September 2020
- Designed prototype using React and SQL aiming to simplify charitable donations allowing individuals/ organizations to donate directly to charities without visiting numerous webpages

Star Map — June 2020
- Developed social media application using NASA's APOD API encouraging users to find/search/share astronomical pictures.
- Created Front-end created in HTML, CSS, React/Redux and Back-end using Java and SQL

Animator — January 2020
- Built application in Java, using the MVC Pattern, converting inputs such as .txt and .svg to animation, then allowing users to edit simulation from GUI

ACTIVITIES

Association for Women in Mathematics – Northeastern University Chapter — Boston, MA
Secretary/ Founding member — October 2019 — September 2020
- Co-founded club offering resources to underrepresented groups in Northeastern Mathematical community
- Established framework for approval from Association for Women in Mathematics and Northeastern
- Planned 15+ events for 40+ members with the allocated budget of $3K