

Mateen Kasim

✉ mateenkasim18@gmail.com 📞 (810) 569-2164 📍 Pittsburgh, PA 🌐 mateenkasim

🎓 EDUCATION

University of Pittsburgh, BS in Computer Science

Minors in Chemistry, Religious Studies

GPA: 3.98

Aug 2018 – Apr 2022

Pittsburgh, PA

Abington Heights High School

Salutatorian, Class President

GPA: 4.00

Sep 2014 – Jun 2018

Clarks Summit, PA

📁 PROFESSIONAL EXPERIENCE

Lab Assistant, University of Pittsburgh Medical Center (UPMC)

- Applying MATLAB to automate a curve-fitting process to predict dopamine concentrations.
- ETL of unstructured data from hundreds of patients to prepare for analysis of general biomarkers.

Aug 2019 – present

Pittsburgh, PA

Undergraduate Teaching Assistant, University of Pittsburgh

- **Honors General Chemistry 1/2** (CHEM 710/720) – smaller, more fundamentally focused course compared to the standard.
- Instructed weekly recitations on a range of complex topics (quantum chemistry, thermodynamics, coordinated compounds, etc.); graded related exams, quizzes, and homework.
- Supervised 20 laboratory experiments carefully designed to enhance the Honors curriculum.

Aug 2019 – Apr 2020

Pittsburgh, PA

🧠 SKILLS

Java | JavaScript | C/C++ | HTML/CSS | Python | MATLAB | MIPS | Git/GitHub | MacOS | Flask | JUnit

📁 PROJECTS

Boids, JavaScript | p5.js

- A leaderless flocking simulation, based on three rules for each "boid": separation, alignment, and steering.
- Improved with use of quadtree, designed to reduce collision-detection overhead in game mechanics. Operations per frame reduced by 50-75%. Number of functional boids increased from 150 to 300-400.

WorkSpots, Java | Java Swing

- A GUI to assign designated places to work per responsibility given a list of each, shuffles every 2 weeks.
- Built to enhance personal productivity, wrapped in a MacOS .app file for convenient use.

BlockCollide, Java

- Command line-based simulation of blocks colliding on a surface with no friction and perfectly elastic conditions.
- Calculates digits of π when input matches a special set of conditions, citing a specific mathematical paper.

🏠 ORGANISATIONS

Judicial Committee, Member

- University of Pittsburgh Student Government Board

Aug 2020 – present

Pittsburgh, PA

Heinz Chapel Choir, Tenor

- Web-Page Manager: 2019-present
- Tenor II Section Leader: 2019-2020

Aug 2018 – present

Pittsburgh, PA

📖 COURSES

Computer Science

- Data Structures, Algorithm Implementation, Algorithm Design, Computer Organization & Assembly Language, Operating Systems, Programming Languages for Web Applications, Software Quality Assurance

Mathematics

- Calculus 1/2/3, Discrete Mathematics, Formal Methods in Computer Science, Probability Theory, Analysis

Natural Sciences

- Honors Physics 1, Honors Human Physiology, Honors Gen. Chemistry 1/2, Organic Chemistry 1/2, Biology 1/2