Allen Gao

✉ fagao@uwaterloo.ca   ➤ allenga.github.io/website/   ○ github.com/AllenGa   in linkedin.com/in/allenfgao

SKILLS

Tools & Languages: Proficient: Java, C | Experienced: C#, Racket | Learning: HTML/CSS, Markdown
Other: Hugo, Chocolatey, Visual Studios, GitHub

EDUCATION

1B Honours Computer Science (Co-op)   09/2019 – present | Waterloo, Canada
University of Waterloo
- Awarded President's Scholarship of Distinction
- Term Dean's Honours List (*Fall* 2019)
- Faculty Average: 91.33

Relevant Courses
- CS136: Elementary Algorithm Design and Data Abstraction
  - Developed **C** proficiency through implementation and testing of iterative and recursive sorting **algorithms**, **data structures**; lists, stacks, queues, trees, and their applications
  - **Current Mark: 93.96**
- CS135: Designing Functional Programs
  - Developed strong understanding of functional programming, linear and nonlinear data structures, abstraction and encapsulation, generative and structural recursion
- MATH136: Linear Algebra 1
  - Gained understanding of determinants, eigenvalues, diagonalization and applications

PROJECTS

Grid Game, *Java*
- Developed a 2D top-down, procedurally generated strategy game using **object orientated design** in **Java**
- Implemented a map-generating algorithm to randomly generate levels along with random terrain
- Incorporated function to read and write game data to save files

Image Editor, *Java*
- Developed application with an intuitive user interface to edit images in **Java**
- Implemented features such as colour and sepia filters, image manipulation such as rotation, flip, and blur
- Used file I/O to save and load images locally, as well as convert .jpg to .png

Personal Website, *Hugo | Markdown*
- Built a static website using **Hugo** and **Markdown** to display personal projects and resume; deployed using **GitHub Pages**

EXPERIENCE

Primary Instructor, *Kumon*   03/2017 – 11/2017 | Markham, Canada
- Developed effective work habits and problem-solving skills in classes with **10+** students
- Monitored student progress and developed reports for center director to ensure effective learning
- Enhanced student understanding of math, resulting in a **50%** increase in speed

AWARDS

CEMC Euclid Math Contest, *University of Waterloo*
- Top 25% in Canada

INTERESTS

Sketching | Reading | Tabletop Games | Game Development