KSHITIJ SHAH

Computer Science Specialist and Statistics Major

kshitij.shah@mail.utoronto.ca www.kshitijshah.me (416) 505 - 4684 github.com/KshitijShah-GitHub

Summary of Qualifications

- **Competent programmer –** knowledge of basic data structures and algorithms including binary trees, searches, sorts, and some paradigms such as object-oriented programming, also a willingness to work with and learn new languages, frameworks, technologies, and concepts
- **Resourceful and a quick learner** – very motivated and enthusiastic learner, quick at grasping concepts, very interested in taking initiative and learning new skills
- **Outstanding Collaboration and communication skills** – participated in several filmmaking competitions where I lead a small team, also was an executive member of several high school clubs
- **Excellent time management skills** – worked very well in high-pressure, time-sensitive situations, for example, participation in several 24-hour film challenges and a 12-hr MLH hack-day

Skills

Programming:	Python · Java · JavaScript · HTML/CSS
Tools:	Jupyter Notebooks · JavaFX · JQuery · LaTeX · Atom · Eclipse IDE · PyCharm
Adobe CC Suite:	Illustrator · Photoshop · Premiere Pro · After Effects · Muse
Microsoft Office:	Word · OneNote · PowerPoint · Publisher · Outlook · Excel

Relevant Projects

Univariate Linear Regression with Gradient Descent — June 2018

- Implemented **gradient descent** in python via **Jupyter Notebooks** to minimize a mean square error function
- Used **NumPy** to do numerical computations, used **matplotlib** for 2D and 3D data visualization
- Used **LaTeX** markup to record detailed notes about relevant mathematics, formulas, and concepts

Taylor Series Estimation Tool — April 2018

- **Applied calculus** concept to develop algorithm which estimates elementary functions
- Utilized **dynamic programming** principles to significantly optimize calculation of factorials
- Wrote **well documented** and readable code

JavaFX Educational Application — May 2017

- Developed GUI application with **JavaFX** framework
- Applied principles of **object-oriented programming** for maintainable code
- Utilized **graphic design experience** to create a modern user interface and gamify content

Recursive Binary Search Application — March 2017

- Used **Java** to search contents of text file with recursive implementation of binary search
- Empirically compared efficiency of binary and linear searches on a sorted list
- Used input validation to check for correct formatting in user input

Extra Curriculars

Markham District Best Buddies | Chapter Coordinator and Volunteer — September 2016 – June 2017

- Undertook **leadership role** in supporting and mentoring disabled students in school
- Designed 15+ posters, videos, and promotional paraphernalia

TIFF 24-hour Film Challenge | Director and Editor — February 2016, February 2017

- Directed and edited 2 films that were screened at TIFF Bell Lightbox
- Worked with a small team, developed **strong communication** and **collaboration skills**

FIRST Robotics Team 5428 | Graphic Designer and Programmer — September 2016 - June 2017

- Produced several posters and animations for team
- Worked with programming team for some robot functionality

Education

University of Toronto – St. George Campus — September 2017 - Present

- Enrolled in **Computer Science** Specialist and **Statistics** Major program
- Pursuing Honors **Bachelor of Science** (BSc)
- Expected graduation in May 2021