KSHITIJ SHAH

Computer Science Specialist and Statistics Major

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Summary of Qualifications

- **Competent programmer –** knowledge of basic data structures and algorithms including binary trees, searches, sorts, and paradigms such as object-oriented and dynamic programming, also a willingness to work with and learn new languages, frameworks, technologies, and concepts
- **Strong 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, I participated in a 12-hour MLH Local Hack-Day competition

Skills

Programming: Python · Java · JavaScript · HTML/CSS · JavaFX · JQuery · LaTeX
Software Tools: Jupyter Notebooks · Git · Atom Editor · IntelliJ · Android Studio · PyCharm · VSCode
Adobe CC Suite: Illustrator · Photoshop · Premiere Pro · After Effects · Muse
Microsoft Office: Excel · Word · PowerPoint · OneNote · Publisher · Outlook

Education

University of Toronto – Computer Science Specialist and Statistics Major
September 2017 - Present

- Pursuing Honors **Bachelor of Science** (BSc), expected graduation in May 2021
- Enrolled in **Technology Leadership Initiative,** a program dedicated to developing industry-based skills in students
- Relevant Courses: Software Design, Theory of Computation, Multivariable Calculus, Probability, Linear Algebra

Relevant Projects

Python Database Manager – A GUI Desktop Application
July 2018

- Utilized **Tkinter** package in Python to create a clean and simple user interface
- Created then modified database file using **SQLite3** in Python
- Enabled live updating view of database file as user adds, removes, or modifies entries in the table

Univariate Linear Regression with Gradient Descent
June 2018

- Implemented **gradient descent** in a **Jupyter Notebook** from scratch to minimize a mean square error function
- Visualized data with 2D and 3D plots created with **matplotlib** and used **NumPy** for numerical computations
- Recorded detailed notes in **LaTeX** markup about relevant mathematical concepts and formulas

Taylor Series Estimator – A CLI Python Tool
May 2018

- **Applied calculus** concepts to develop an algorithm to estimate select elementary functions
- Optimized repeated calculations of factorials significantly with **dynamic programming** principles
- Wrote well documented and readable code

Solar Systems – An Educational Java Desktop Application
May 2017

- Created GUI application with the **JavaFX** framework
- Applied principles of **object-oriented programming** to write flexible and maintainable code
- Utilized years of **graphic design experience** to craft a modern UI and to gamify educational content

Extra Curriculars

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

- Co-directed and edited two short films that were screened at the TIFF Bell Lightbox
- Developed strong communication skills working in a fast-paced environment with tight deadlines

FIRST Robotics Team 5428 | Graphic Designer
September 2016 – June 2017

- Created a variety of posters, flyers, banners, and videos for the team
- Worked closely with business and marketing team to craft sponsorship packages and proposals

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

- Took a leadership role in supporting and mentoring disabled students
- Designed 15+ promotional items and helped organize several events throughout the year