# Qasim Warraich

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Recently, my work and personal interest has been in the area of computer vision and its applications in robotics. As a component of my Master's degree I completed an individual study module with the Robotics and Perception research group at UZH. This study involved gaining familiarity with Event-Based Vision and its application in solving problems such as VIO, SLAM and it's potential in various reconstruction algorithms. Personally what excites me the most is working on projects that influence and play a tangible role in the physical world. This is the primary reason I am passionate about working with computer vision technologies and robots. Implementations such as flying machines and autonomous robots are especially of interest to me. I also have a strong personal affinity for User-Centered Design and especially the subtleties in the interaction between user and interface. Factors such as the understanding the physiological and ergonomic tendencies of users, factors such as appreciating visual or aesthetic preferences and also the manner in which individuals approach matters of logic and problem solving are unendingly interesting to me.

#### **EDUCATION**

### University of Zurich

Master of Science in Computer Science — Current Grades: 5.3/6

Zurich, Switzerland February. 2019 – Present

New York, NY, USA

September. 2013 - July 2017

Relevant Coursework:

- Visual Algorithms for Mobile Robotics
- Individual study in Event-Based Vision
- Informatics 1 & 2

- IT Security
- Database Systems
- Big Data Analytics

#### City University of New York: Hunter College

Bachelor of Arts in Media Studies — Major GPA: 3.62/4

Relevant Coursework:

- Web Development 1 & 2
- Concepts in Gaming

- Introduction to Computer Science
- Programming for Everyone (Python)
- Digital Design and Usability

#### SKILLS

Programming Languages: C/C++, Python, Java, JavaScript, MATLAB, R

Other Languages: Shell Scripting, Markdown, TEX

Familiar Tools and Libraries: Linux, Git, OpenCV, Raspberry Pi, SSH, Various Linux CLI Tools

Spoken Languages: English (Native), Urdu (Native), French (Novice), German (Novice)

Other: PC Hardware Knowledge, Basic Networking, Basic Electronics (Breadboard and Soldering)

#### **PROJECTS**

## The Woof Factor in Zurich | R, Jupyter Notebooks, Git, Yandex Translate API

- Developed a big data pipeline to create predictive models for dog ownership trends using dog ownership, city planning and economic datasets from the City of Zurich's Open Data Platform.
- Implemented in R and then ported to a Jupyter Notebook.
- Exploratory data analysis performed with the aid of numerous visualisations and plots.
- github.com/qasimwarraich/Big-Data-Analytics

#### Turbulence Pro | Javascript, p5.js

- "Flappy Bird" style game programmed in JavaScript.
- Uses the p5.js library for sprite animation and basic collision detection.
- Playable inside the browser on PC and Mobile (Touchscreens).
- qwarrai.ch/tpro