

## PERSONAL INFORMATION

## Adil Rabbani

 Hartkirchweg 25, Apartment no. 69 008, 79111 Freiburg im Breisgau (Germany)

 +49 1525 7233 762

 helloadilrabbani@gmail.com

 <https://adilrabbani.github.io/>

## WORK EXPERIENCE

01/02/2020–Present

## Software developer (Work student) - Computer Graphics

Fifty2 Technology GmbH  
Tullastraße 80, 79108 Freiburg (Germany)  
<https://www.fifty2.eu/>

20/12/2018–20/02/2019

## Front-end Developer

EasyInsurance  
Neoteric Technologies (Pvt.), TIC NUST, Innovation Drive, H-12 Islamabad, Pakistan,  
44000 Islamabad (Pakistan)  
<https://easyinsurance.com.pk/>

- **Comparison Tool:** Added features to the comparison tool of the website. Sorting insurance company plans according to the user's preference and other filters.
- **Depreciation Rate Calculation:** Added calculation and displaying of depreciation rate according to a user's data, for car insurance.

01/05/2018–30/08/2018

## Student Developer - Computer Graphics

Processing Foundation, Google Summer of Code 2018, Remote, New York, Boston, Los Angeles (United States)  
<https://processingfoundation.org/>

- **3D Shapes:** Implemented 3D primitives for `p5.js` adding 3D `arc`, `point`, `bezierVertex`, `curveVertex` and `quadraticVertex`. Fixed issues related to these primitives.
- **Ported Examples:** Ported '`Input`' examples from Processing API to `p5.js`.
- **Doc and Test Examples:** Added documentation and test examples related to these primitives.
- **Medium Article:** Click [here](#) to go to the medium article.

## EDUCATION AND TRAINING

21/10/2019–Present

## Master of Science in Computer Science

EQF level 7

Albert Ludwig University of Freiburg  
Georges-Köhler-Allee 101, 79110 Freiburg im Breisgau (Germany)  
[http://www.informatik.uni-freiburg.de/front-page-en?set\\_language=en](http://www.informatik.uni-freiburg.de/front-page-en?set_language=en)

- **Current Courses:** Advanced Computer Graphics, Introduction to Mobile Robotics, Machine Learning.
- **Courses Taken:** Simulation in Computer Graphics, Information Retrieval, Bioinformatics-I, Computer Graphics and Image Processing.

20/08/2014–22/06/2018

## Bachelor of Science in Computer Science; CGPA 3.16/4.00,

EQF level 6

Max(4.00), Min(1.00)

National University of Sciences and Technology  
Islamabad, H-12, 71000 Islamabad (Pakistan)

<http://www.nust.edu.pk/INSTITUTIONS/Schools/SECS/Pages/default.aspx>

- **Core Courses:** Object Oriented Programming, Data Structures and Algorithms, Computer Graphics, Linear Algebra, Digital Image Processing, Numerical Analysis, Artificial Intelligence, Operating Systems, Database Systems. Projects for **Data Structures**, **Computer Graphics**, **Web Engineering**, **Digital Image Processing** and **Advanced Programming** were chosen among the top projects in class.

## PERSONAL SKILLS

Mother tongue(s) Urdu

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
Common European Framework of Reference for Languages - Self-assessment grid

Job-related skills

### Academic Projects:

- **Augmented Reality Based Interior Design (2018):** Android application that allows users to visualize 3D furniture in their room using Augmented Reality. Used **Unity**, **ARCore**, **C#**.
- **Marbles (2018):** Web based Multiplayer racing game that enables users to compete with each other in real-time. Worked on collision detection, designing game level and calculating a player's position with respect to the other player. Used **Three.js**, **Socket.io**, **Javascript**.
- **Pedestrian Detection (2017):** Pedestrian Detection in images using Histogram of Oriented Gradients as the descriptor and Support Vector Machine as the classifier. Wrote descriptor from scratch to understand the underlying concepts. Used scikit-learn to integrate SVM. Used **PIL**, **Numpy**, **Python**, **Scikit-learn**.
- **Link State Routing Protocol (2017):** Implemented a simulation of Link State Routing Protocol on Python. This involved working with threads for sending and receiving packets on virtual routers. Also worked out the algorithm to detect dead routers in the network. Used **Sockets**, **Threads**, **Python**.
- **Mathemagician (2016):** Android app for youngsters to help them learn and improve elementary mathematical concepts. App consisted of 6 games for teaching Counting, Addition and Subtraction, Worked on animation, writing logic for all games and designing the application. Used **Corona SDK**, **Lua**.
- **IdeaForest (2016):** A social networking site to unite entrepreneurs and developers on a single platform. Individuals with the right ideas can collaborate with individuals with the right skills. Implemented a real-time notifications system and a chat client using Ajax. Users can post an idea or work together on a project posted by others. Used **Bootstrap**, **Ajax**, **Javascript**, **Php**.
- **Checkers (2015):** Checkers game against A.I using Minimax Algorithm. Worked on A.I, game rules and implemented graphics. Used **SFML**, **C++**.
- **Encryption Algorithms (2014):** Worked on different encryption algorithms including Caesar Cipher, Solitaire Encryption and RSA Encryption. Used **C/C++**.
- **PPM Image Editor (2014):** Implemented image editor for PPM image format. Used **C/C++**.

### Skills:

- **Programming Languages:** C, C++, C#, Python, JavaScript.

- **Libraries/APIs:** OpenGL, WebGL, p5.js, Three.js.
- **Version Control/Softwares:** Git, Unity, Matlab, Visual Studio.
- **Web:** HTML, CSS, JQuery, MySql, Bootstrap.