

# Izza Tariq

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[github.com/Izza11](https://github.com/Izza11) / [izzatariq.com](http://izzatariq.com)

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## TECHNICAL SKILLS

**Languages** : C/C++, Java, JavaScript, Node.js, GLSL, Python

**Tools** : Git, OpenGL, MATLAB, Unity, Visual Studio, Eclipse, Electron, Adobe Photoshop, 3Ds Max

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## WORK EXPERIENCE

**Software Developer**, *Google Summer of Code, Processing Foundation* May 2018 - August 2018

- Developed a cross-platform client-server based GLSL tool for Processing Development Environment (PDE).
- Collaborated with other Processing members to deliver work in a timely manner using Agile Software Development.
- Developed new back-end features and designed technical documentation for the tool. *(Java, JavaScript, Git)*

**Research Assistant**, *Purdue University* August 2017 - May 2018

- Developed graphical tools for art-based applications which improved usability for digital artists.
- Developed and optimized rich interactive experiences using sensor technologies (e.g. [Muse](#), [Bodygraphe](#)).
- Automated the drawing process for artists by programming a projection mapping system in Processing. [\(link\)](#)  
*(C++, OpenGL, Processing)*

**Point Cloud Engineer**, *Technology for People Initiative* August 2015 - January 2016

- Designed 3D virtual models of historical sites in Pakistan in collaboration with [Cyark](#) and USAID. [\(link\)](#)
- Collaborated with other team members that ensured timely completion of 6 historical sites in half a year.
- Lead weekly training sessions on the use of modeling software for a group of 10 people.  
*(3Ds Max, Leica Scanner)*

**Graduate Teaching Assistant**, *Purdue University* August 2018 - December 2019

- Assisted about 125 students on the use of CAD software and engineering drawings in a lab-based environment.  
*(CATIA)*

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## EDUCATION

**MS Computer Graphics** August 2017 - May 2020

Purdue University, West Lafayette, IN

GPA: **3.81/4.0**

Thesis: Interactive Interface for Shader Programming

**B.S. Computer Science** August 2012 - May 2016

Lahore University of Mgmt. Sciences, Lahore, PK

**Course Work:** Datastructures & Algorithms, Databases, Operating Systems, Software Engineering, Computer Graphics, Computer Vision, Human-Computer Interaction, Digital Image Processing.

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## SELECTED PROJECTS

- **Interactive Interface for Shader Programming (MS Thesis)** Fall 2019  
Used object-oriented design skills to develop a shader editing tool in PDE for improved user experience, that will be followed by usability testing. [\(link\)](#) (Java, Git)
- **3D Shape Recovery using Texture** Spring 2019  
Implemented existing shape-from-texture algorithm using techniques such as fourier transforms and spectral inertia, to test efficiency of algorithm with respect to custom textures. [\(link\)](#) (MATLAB)
- **Eye-exercise for VR** Fall 2017  
Collaborated with a cross-functional team of engineers and designers to develop a prototype which reduced user fatigue by 66% in VR (Virtual Reality). [\(link\)](#) (Unity, C#)

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## AWARDS AND HONORS

- **Altice Innovation Roadshow Hackathon, NYC – Awarded 2nd position** 2017  
Collaborated with a team of 3 people to develop and present an AR prototype in Unreal Engine, featuring product placement as a monetization opportunity for Altice.
- **Publication** 2018  
Pradeep Periasamy, **Izza Tariq**, Yichen Sheng (2018). Virtual Eye Exercise to reduce VR Sickness. In Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (SI3D) (Poster)