

Muhammad Bin Tahir Mir

Technical Artist

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EDUCATION

CARNEGIE MELLON UNIVERSITY, ENTERTAINMENT TECHNOLOGY CENTER (ETC)

MASTER OF ENTERTAINMENT TECHNOLOGY

Graduating May '20 | Pittsburgh, USA

LAHORE UNIVERSITY OF MANAGEMENT SCIENCES (LUMS)

BS IN COMPUTER SCIENCE

Graduated May '17 | Lahore, Pakistan

COURSEWORK

GRADUATE

Building Virtual Worlds

Visual Story

Improvisational Acting

UNDERGRADUATE

Computer Graphics

Human Computer Interaction

Topics in Interactive Computing

Software Engineering

Advanced Programming

Computer Vision

Human Behaviour

Cognition (Graded Independent Study)

History of Modern Psychology

(Research Asst. & Teaching Asst.)

Graphics and Media Lab @ LUMS

Writing and Communication @ LUMS

SKILLS

ART & ANIMATION

Expert:

- Rigging in Maya
- Hand-Drawn Character Animation
- Photoshop & Digital Illustration
- Human Anatomy & Form

Intermediate:

- Topology and Modelling in Maya
- 3d Animation in Maya

PROGRAMMING

Languages:

- Python • C# • HTML • CSS
- JavaScript • C++

Tools:

- Unity • Perforce

EXPERIENCE

MANO ANIMATION STUDIOS | TRADITIONAL CHARACTER ANIMATOR

July 2017 – March 2018 | Karachi, Pakistan

- The work produced by Mano has been recognized by Studio Ghibli, Studio Chizu, TED, IGN, Gamespot and more.
- Animated 12 entire shots (30 seconds worth of traditional animation footage) for Pakistan's first hand-drawn animated feature film, 'The Glassworker'.
- Put Disney's 12 Principles of Animation into practice. Strongly familiarized myself with entire traditional animation pipeline.

KOÇ UNIVERSITY | RESEARCH ASSISTANT | KUAR DESIGN LAB

June 2016 – August 2016 | Istanbul, Turkey

- Worked as the sole programmer in an inter-disciplinary team of mechanical engineers and designers.
- Used Python, Caffe (a deep learning library for Python) and OpenCV to
 1. calibrate a Projector and Kinect.
 2. write a program to detect several kitchen utensils using the Kinect.
 3. project bounding boxes onto the utensils' real-world coordinates using the Projector.

ACADEMIC PROJECTS

BUILDING VIRTUAL WORLDS | COURSE PROJECTS, ETC

Fall 2018 (Ongoing) | Pittsburgh, USA

- Worked in inter-disciplinary 5-person teams, rapidly prototyping and developing VR and AR experiences (for the HTC Vive, Oculus Leap Motion, Meta II, CAVE) over 2-week sprints after which teams were shuffled.
- Rigged, animated, modelled and textured multiple characters and environment assets to be used in-game using Maya.

INDEPENDENT STUDIES

BIPEDAL RIG | MAYA - Rigging - October 2018

- Implemented a bi-pedal rig from scratch including but not limited to the following features: Flexible spine, FK/IK arms and legs, independent hip movement, feet that rotate at various points (toe, heel, ball), eye targeting, space-switching IK arms and hand/finger controls.
- Wrote a tool in Python for automating the process of applying constraints on corresponding joints for duplicates of a skeleton.

CHARACTER DESIGN | PHOTOSHOP - Art Fundamentals - Jan 2018

- Researched principles of character design for 2d animation.
- Drew several iterations on paper, adjusted according to feedback.
- Drew 360 degree turnarounds for the characters.

HONOURS

- 2018 - Awarded the ETC Merit Scholarship at CMU.
- 2018 - Selected as 1 of Young Sustainable Impact's (YSI) 21 global leaders out of a pool of 9000 applicants.