Muhammad Bin Tahir Mir

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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

Technical Animation
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

PROGRAMMING

Languages:
• Python • C# • HTML • CSS
• JavaScript • C++
Game Engines & Tools:
• Unity • Perforce • Git
Platforms:
• Vive • Oculus • Kinect

ART & DESIGN

Tools:
• Maya • Photoshop • Premier Pro
Crafts:
• Rigging • Animation • Illustration

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 interdisciplinary team of mechanical engineers and designers achieving the following milestones:
  1. Calibrated a Projector and Kinect using Gene Kogan's Kinect Projection Toolkit.
  2. Wrote a program to detect several kitchen utensils using the Kinect, PyOpenCV and Caffe.
  3. Projected bounding boxes onto the utensils' real-world coordinates using the Projector and PyOpenCV.

ACADEMIC PROJECTS

BUILDING VIRTUAL WORLDS | Course Projects, ETC
Fall 2018 (Ongoing) | Pittsburgh, USA

- Worked in interdisciplinary 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.