

NAGARAJ RAPARTHI

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EDUCATION

TEXAS A&M UNIVERSITY

MASTERS IN VISUALIZATION

August 2018 - August 2020

ASIAN INSTITUTE OF DESIGN

DIPLOMA IN GAME ART

May 2015 - May 2016

SICET

BACHELORS IN COMPUTER SCIENCE

June 2011 - April 2015

SKILLS

PROGRAMMING

C++ | Python | OpenGL (2+ years)

VME lab's WAVE software environment
research and development

Maya API plugin development

Unreal Engine shader, plugin and blueprint
development

Development with Microsoft Visual Studio
Modeling | Sculpting

Lighting | Shading

TOOLS

Maya | Zbrush | Max

Unreal Engine | Unity 3D

Microsoft Visual Studio

Perforce | Git

COURSEWORK

GRADUATE

Physically Based Modeling

Image Synthesis

Computer Graphics

Advanced Computer Animation

Game Development

Computational Photography

ACHIEVEMENTS

FILM CREDITS

The Justice League

Ghost In The Shell

Ad Astra

The Predator

OTHER FILMS

Murder On The Orient Express

Detective Pikachu

The New Mutants

Maleficent: Mistress of Evil

EXPERIENCE

VAL G. HEMMING SIMULATION CENTER | 3D ENVIRONMENTS

SOFTWARE ENGINEER INTERN

May 2020 - August 2020

- Conducted research on Motion Matching algorithm and implemented an academic research paper on an existing plugin.
- Worked on the VME lab's WAVE software environment and developed a technique to vastly improve it's computational efficiency.

TEXAS A&M UNIVERSITY | GRADUATE TEACHING ASSISTANT

August 2018 - May 2020

- Taught classes on C++ programming with OpenGL and conducted lab sessions to help students with programming projects.
- Helped with modeling and rigging and other tools in MAYA. Graded assignments and projects.

MOVING PICTURE COMPANY (MPC) | MODELING ARTIST

June 2016 - July 2018

- Worked on VFX demanding Hollywood movies to model props and characters.
- Managed complex large scanned data and made industry standard dailies.
- Extensive experience in high-poly 3D modeling and sculpting.
- Effective member of the team. Was the acting lead of the movie "The Predator".

PROJECTS

COMPUTATIONAL PHOTOGRAPHY | IMAGE PROCESSING

Python

- A collection of novel applications to avoid the limitations of standard cameras using computer algorithms such as image re-targeting, high dynamic range imaging, and texture synthesis.
- Makes use of image and video processing tools like sampling, filtering, pyramids, Harris corner detector, and RANSAC.

CUSTOM DEFORMER | MAYA PLUGIN

Maya API

- A custom deformer for Maya which deform any mesh into a sphere with keyable attributes.

PARTICLE GENERATOR | PHYSICS BASED SIMULATION

c++ | OpenGL

- A particle generator which simulates up-to 30000 particles at a stable frame rate by using effective memory allocation and data structures. Includes collision detection using barycentric co-ordinates.

COLORFALL | HIDDEN ESCAPE | SCALLYWAG'S COVE | GAMES

Unreal Engine

- Colorfall is a third person RPG game developed over the course of 2 months in collaboration with mentors from Bioware, Epic Games and Bluepoint Games.
- Hidden Escape and Scallywag's cove are both VR games and team projects, the former developed over Fall 2019 using Agile with Scrum practices and the later in 48 hours during the annual game jam, Chillenium at Texas A&M University.