Emre Tanirgan

emretanirgan.com
emretan@seas.upenn.edu

EDUCATION

University of Pennsylvania   (Philadelphia, PA)   2011 - 2015
- **Degree:** M.S.E. and B.S.E. in the School of Engineering and Applied Science (May 2015)
- **Graduate Major:** Computer Graphics and Game Technology
- **Undergraduate Major:** Digital Media Design, a computer science based interdisciplinary program that combines Computer Science with Fine Arts and Communications. **Minor:** Engineering Entrepreneurship
- **GPA:** 3.75 / 4.0
- **Relevant Coursework:** Game Design and Development, Computer Graphics, Physically Based Animation, Computer Animation, AI, UX Design, Engineering Entrepreneurship, Algorithms, Software Engineering

WORK EXPERIENCE

Creative Technology Group Intern   **Walt Disney Imagineering**   June 2015 – Present
Unreal Engine, Unity, Oculus Rift, HTC Vive,   **Summer 2014**
C++, Python, C#, Maya, MotionBuilder, MEL
- Currently implementing the infrastructure for a networked multi-user VR HMD project in Unreal Engine.
- Developed and implemented a workflow to view ride pre-visualizations on an Oculus Rift.
- Added a GUI to a tool that allows users to navigate in a VR CAVE using different kinds of controllers.
- Added features to a Maya plugin for creating projectors, and a Maya plugin for animating KUKA robots.

Team Lead and Developer   **Pennsylvania Game Studio**   **Spring 2014**
Unity, OpenCV, Kinect API, C++, C#
- Developed a platformer where players place physical blocks on a wall and the blocks become platforms in the game, which is then projected onto the wall. Worked on OpenCV image processing and created a Unity C++ plugin to send the OpenCV data and procedurally generate platforms.

Google Chrome Academy   **Google**   **Summer 2013**
JavaScript, Web Speech API, Angular.js
- Was one of the 30 students to be accepted in the first annual Google Chrome Academy, a week-long web development program. In a team of 5, built a web application called Forbidden Wood that was an online version of Taboo.

Research Assistant   **SIG Center for Computer Graphics**   **Summer 2013**
WebGL, JavaScript, three.js, OpenGL, C++
- Created visualizer software for various motion capture data formats such as BVH, C3D, FBX, for Penn's Computer Graphics Lab. Received the Diane Chi "Rising Star" research award for my work over the summer.

PROJECTS

DORA – *http://doraplatform.com*   **Senior Design Project**   July 2014 – Present
Oculus Rift, C++, Arduino, Qt   **Intel Cornell Cup - 1ˢᵗ Place**
- Worked with 3 mechanical engineers to build a telepresence robot that can be tele-operated by a user wearing an Oculus Rift DK2 and using a game controller. Implemented all code on the user end, and the wireless communication between the computer, Arduinos and the cameras.
- The project got extensive media coverage from news outlets such as The Wall Street Journal, IEEE Spectrum, Popular Science, IGN and BBC, for being the first of its kind to track the user's head in all 6 degrees of freedom.

Kesif   **Disney Imaginations Finalist Project**   Aug. 2013 – Jan. 2014
Unity, Vuforia AR Plugin, Maya, MEL   *Link at: is.gd/disneykesif*
- Selected as one of six finalist teams from a pool of 231 applicants in Imagineering's annual design competition. Worked in a team of four in the conception and development of an experience at Istanbul, Turkey. Specifically created a 3D animation that conveys our concept and an augmented reality mobile app important for our experience.

Dynamic Voronoi Fracturing   **Phys. Based Animation Final Project**   April – May 2014
C++, Unity, C#   *Link at: is.gd/voronoi*
- In a team of 3, created a dynamic fracturing system in C++ and turned it into a Unity plugin to demonstrate it in real-time. Worked on creating the DLL that would interface between our C++ code and Unity.

TECHNICAL SKILLS
- **Game Engines:** Unity, Unreal Engine
- **Languages:** Most proficient at C++, Python, Java, C#. Familiar with JavaScript, HTML, CSS, OpenGL, C.
- **Design: 3D -** Maya, Motion Builder   **2D –** Photoshop, Illustrator, After Effects

ACTIVITIES

Penn Play Game Jam Founding Team Member   Spring 2014 – Present
- I am one of the founding team members of Penn Play, the first ever game jam organized at Penn.

PennApps Executive Team Member   Spring 2013 – Spring 2014
- I was one of the organizers of PennApps, the world's largest hackathon with 1100+ incoming hackers every semester.

The University of Pennsylvania Marching Band – Percussionist and past webmaster

LANGUAGES   Proficiency in Turkish, English, Advanced knowledge of German, Conversational Spanish.