ATIEH TAHERI

Dept. of Electrical & Computer Engineering, UC Santa Barbara, Santa Barbara, CA 93106
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RESEARCH INTERESTS

Computer Vision, Deep Learning (Multimodal Learning), Image Processing

EDUCATION

University of California, Santa Barbara — Santa Barbara, CA, USA
Ph.D. student in Electrical and Computer Engineering — Present
Advisor: Dr. Yuan-Fang Wang

University of California, Santa Barbara — Santa Barbara, CA, USA
M.Sc. in Electrical and Computer Engineering, GPA: 3.77/4.00 — June 2019

Sharif University of Technology — Tehran, Iran
B.Sc. in Computer Engineering (Software Engineering), GPA: 18.13/20 — Sept. 2011
Thesis: Analysis and Implementation of Digital Image Inpainting Algorithms

PROFESSIONAL EXPERIENCE

Apple Inc., Cupertino, California, *Summer Intern* — Summer 2017
Advisor: Dr. Marco Zuliani, Computer Vision Research Manager
- Computer Vision and Machine Learning Research Project: Inspection tools for Deep Convolutional Networks

Apple Inc., Cupertino, California, *Summer Intern* — Summer 2016
Advisor: Dr. Marco Zuliani, Computer Vision Research Manager
- Computer Vision and Machine Learning Research Project: 3D Technology for User Photo Libraries

Magic Leap Inc., Mountain View, California, *Summer Intern* — Summer 2015
Advisor: Dr. Jason Wither, Senior Software Engineer
- Simulation and implementation of stereo monochromatic camera and depth sensor

Mobile Value Added Services Laboratory, Tehran, Iran, *Summer Intern* — Summer 2010
Advisor: Dr. Hamid R. Rabiee, Professor at Sharif University of Technology
- Sim card programming and developing applet for it

HONORS AND AWARDS

- S*elected* as an outstanding student in Lower-Division Italian Language Courses for meritorious achievement throughout the year 2018-2019 in the Dept. of French and Italian at the University of California, Santa Barbara — 2019
- *Awarded* Electrical and Computer Engineering Department Fellowship from University of California, Santa Barbara — 2014
- *Awarded* Fellowship of Exceptional Talents of Sharif University — 2011
- *Ranked 2nd* in cumulative GPA among all B.Sc. students of Computer Engineering department, Software Engineering, Sharif University — 2011
- *Ranked 6th* in cumulative GPA among all B.Sc. students of Computer Engineering department, Sharif University — 2011
- *Winner* of the best internship project in Mobile Value Added Services Laboratory, Sharif University — 2011
- *Ranked 1st* in cumulative GPA among all high school students in province — 2005

SELECTED PROJECTS

Implementation of Image Registration [MatLab] Spring 2016
- Implemented a system that can align image pairs into a single image. It can process variable number of images and it is invariant to the input order.

Viewpoint Invariant Human Head Detection for Crowd Counting [MatLab] Spring 2015
- Implemented a system that detects the human heads in an image and can count the number of people in a crowded scene.

Subsurface Scattering Approximation [C++] Winter 2015
- Implemented a system that renders Subsurface Scattering effects and so developed a combination of local thickness, depth map, and Monte Carlo.

REYES-Style Graphics Rendering [C++] Winter 2015
- Implemented a Reyes-style, micropolygon-based architecture that processes input through a RenderMan-like C interface.

Accelerated Ray Tracer with Monte Carlo [C++] Winter 2015
- Implemented a Whitted-style ray tracer with global illumination features such as reflection, refraction, and shadow.
- Accelerated the ray tracer with Bounding Volume Hierarchy which decreases the time complexity

Implementation of OpenGL-Style Software Rendering Pipeline [C++] Fall 2014
- Developed a software implementation of all the principal blocks of the graphics pipeline: vertex transformation, clipping, rasterization, texturing and framebuffer operations
- Built a Maze Explorer game

Snow Fountain - Short Animated Movie [C++, Previsualization in OpenGL] Fall 2014
- Developed a ray tracer to render scenes in the animation
- Implemented some features such as Reflection, refraction, soft shadow, motion blur

Online Registration and Course Selection [PHP, HTML, CSS, Java Script] Fall 2010
- Developed an online course registration with web interface and design

3D Virtual Atmosphere Computer Game [Java, OpenGL] Spring 2010
- Designed and developed a computer game called “Mountainside View”

Compiler [Java] Spring 2009
- Developed a complete compiler for an arbitrary language consisted of a scanner, parser and code generator for Windows

TECHNICAL SKILLS

C++, Java, Python, Tensorflow, Keras, PyTorch, MatLab, OpenGL, OpenCV, SQL

VOLUNTEER ACTIVITIES

- *Participated as an Area Chair* in **Women in Machine Learning (WiML) Workshop** 2019
- *Raised money* for **Working on Walking (WoW)**, an organization dedicated to supporting all efforts related to Spinal Muscular Atrophy (SMA) 2017