Yongting Cheng

(314) 203-5568 | yongting.cheng@wustl.edu

EDUCATION

Washington University in St. Louis

Master of Science in Computer Science 2019.08—2021.12(Expected) | GPA: 3.63/4.00

Wuhan Textile University

Bachelor of Science in Electrical Engineering and Automation 2014.08—2018.06 | GPA: 3.57/4.00

Relevant Coursework

Geometric Computing for Biomedicine, Computer Vision, Optimization, Natural Language Processing with Deep Learning, Machine Learning, Intro to Artificial Intelligence, Object-Oriented Programming (C++), Data Structures & Algorithms

SKILLS

Technical: Proficient: Python, Java, Mathematica | Familiar: C++, JavaScript, PHP, SQL, HTML | Basic: Verilog

Language: Native in Mandarin Chinese, Fluent in English

SOFTWARE

Computer Vision algorithms implemented by Python:

- Harr Wavelet Decomposition
- Photometric Stereo
- SLIC (Simple Linear Iterative Clustering) segmentation approach

Machine Learning algorithms implemented by Python:

- Implement search algorithms and basic artificial intelligence algorithms of reinforcement learning
- Implement a kernel SVM
- Implement Naive Bayes to predict if a name is male or female

Geometric computing algorithms implemented by Mathematica:

- Thinning Algorithm, Primal Contouring and Dual Contouring
- Fairing by Non-shrinking mid-point averaging [Taubin 1995] and simplification
- Rigid deformation (Principal Component Analysis, SVD, Iterative Closest Point)
- ICP-Laplacian Registration

Natural Language Processing:

- Implement word2vec skip-gram model with stochastic gradient method and negative sampling
- Implement a sequence-to-sequence network with attention to build a Neural Translation Machine system

Java:

- Writing the classic Snake Game

AWARDS AND HONORS

Outstanding Students Scholarship for Overseas Study of Hubei Province Fall 2018

First-class Scholarships for Outstanding Learning Fall 2017

Third place in the 9th Chinese Mathematics Competitions Fall 2017

Third place in the 6th Mathematics Competition for College Students in Hubei Province Fall 2015

EXPERIENCE

Research Intern advised by Prof. Roger Chamberlain **2020.06 - 2020.08**

- Learning basic OpenCL programming syntax
- Reading and learning papers about domain specific design

Harvard Medical School and MGH Visiting student advised by Xiaofeng Liu **2021.07 - 2021.09**

- Work on deep learning and its application on medical imaging problems
- Using generative adversarial networks (GANs) to implement cross-modal synthesis