

# Fangda Han

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## EDUCATION

### RUTGERS UNIVERSITY

**PhD of Computer Science (GPA 3.86) | NJ, US | 2016 - present**

Computer vision & machine learning

### TSINGHUA UNIVERSITY

**Master of Science (GPA 3.75) | Beijing, CN | 2013 - 2016**

Engineering Physics, mainly on computed tomography hardware and algorithm design

**Bachelor of Science (GPA 3.70) | Beijing, CN | 2009 - 2013**

Engineering Physics, mainly on physics

## EXPERIENCE

### RUTGERS UNIVERSITY

**Teaching Assistant | NJ, US | Sep 2016 - present**

Take recitations and grading: Natural Language, Software Methodology, Data Structure, Information & Data Management, Discrete Math, Big Data Analytics and Text Mining, Distributed Systems

### BASF CORPORATION

**Data Scientist | NJ, US | May 2018 - Oct 2018**

Use reinforcement learning to optimize scheduling process, the algorithm learns to make plans for multiple machines, let them cooperate well to meet customer demands.

### GRANPECT LTD

**Research Assistant | Beijing, CN | Oct 2012 - Jun 2013**

Design an image processing application for industrial tomography image adjustment and inspection on iOS platform.

## PROJECT

### SKETCH-BASED VIDEO FACE EDITING

**Main Developer | Oct 2016 – Mar 2017**

Develop a workflow to edit face using human-made stroke and propagate it through the video including landmark detection, face morphing, texture mapping

### COMPUTED TOMOGRAPHY SYSTEM FOR AERO ENGINE DETECTION

**Project Leader | Aug 2014 – Jun 2016**

Develop a dynamic CT system, using the engine's rotation to acquire projection data and reconstruct tomography images to make industrial flaw detection

### SKETCH TO EMOTIONAL FACE PHOTO USING GENERATIVE ADVERSARIAL NETWORKS

**Main Developer | Oct 2017 – Dec 2017**

Develop two frameworks to generate emotional face photos from neutral face sketch using generative adversarial networks

### PORTLAND CITY CRIME PREDICTION

**Project Leader | Mar 2017 – May 2017**

Develop supervised machine learning algorithms including linear model, gaussian process and RNN model to predict crime hotspots of Portland

## SKILL

Python  
Matlab  
Java  
C/C++  
Javascript/HTML/CSS  
Objective-C/Swift  
C#  
Unity3D  
PyTorch/TensorFlow/Keras  
Shell  
Git

## INTEREST

Machine Learning  
Big Data  
Computer Vision  
Natural Language  
Deep Learning  
Data Science  
Software Development  
Web Design

## LANGUAGE

Chinese  
English  
Spanish

### **SOCIAL NETWORK APP (iOS)**

**Project Leader & Main Developer | Dec 2016 – Dec 2017**

Design a social network app for couples that uses psychology to help couples record daily life and build relationship

### **CT IMAGE INSPECTION APP (iOS)**

**Software Developer | Jun 2013 – Aug 2014**

Design an image processing app on iPad which helps quality assess inspectors to check tomography image remotely

## **PUBLICATION**

- [1] Zhao, L., **Han, F.**, Peng, X., Zhang, X., Kapadia, M., Pavlovic, V., & Metaxas, D. N. (2019). Cartoonish sketch-based face editing in videos using identity deformation transfer. *Computers & Graphics*, 79, 58-68.
- [2] Xiao, Y., **Han, F.**, & Chen, Z. (2017). Correct block artifacts by differential projection for a dynamic computed tomography system. *Measurement Science and Technology*, 28(9), 094001.
- [3] **Han, F.**, Xiao, Y., & Chang, M. (2015, October). A block-eliminating method by limited-view scan in a dynamic CT system for running aero-engine. In *Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC)*, 2015 IEEE (pp. 1-5). IEEE.
- [4] Chang, M., Xiao, Y., Chen, Z., **Han, F.**, & YangDai, T. Y. (2015, October). Improve spatial resolution by projection restoration for CT reconstruction. In *Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC)*, 2015 IEEE (pp. 1-4). IEEE.