## Samson Yu Bai Jian

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#### Research

#### A Survey Of Embodied AI: From Simulator To Research Tasks

Jiafei Duan, **Samson Yu**, Hui Li Tan, Hongyuan Zhu, Cheston Tan *arXiv 2021* 

#### **Recognizing Emotion Cause in Conversations**

Soujanya Poria, Navonil Majumder, Devamanyu Hazarika, Deepanway Ghosal, Rishabh Bhardwaj, **Samson Yu**, Romila Ghosh, Niyati Chhaya, Alexander Gelbukh, Rada Mihalcea *arXiv 2020* 

# ActioNet: An Interactive End-to-End Platform for Task-Based Data Collection and Augmentation in 3D Environments

Jiafei Duan, **Samson Yu**, Hui Li Tn, Cheston Tan *ICIP 2020* 

#### **Education**

#### Singapore University of Technology and Design

2017 - 2020

- · Bachelor of Engineering, Information Systems Technology and Design, Honours with Distinction
- · Focus Tracks: Artificial Intelligence and Data Analytics

#### **Work Experience**

**SUTD | Research Officer** 

Oct 2020 - Present

- Implementing a deep learning model that uses a knowledge base and text documents for question answering
   SUTD | Undergraduate Research Assistant
   Sep 2019 Aug 2020
- Animated images of faces into videos displaying different facial expressions using different deep learning architectures and PyTorch
- · Worked on experiments and visualisations for truncated Gaussian mixture research

#### A\*STAR | Research Intern

May 2019 - Dec 2019

- · Published a research paper for ActioNet in IEEE International Conference on Image Processing (ICIP) 2020
- Created <u>ActioNet</u>, a 3D household-based task dataset that can be automatically augmented for randomised positions and different image sizes
- · Customised Allen Institute for AI's AI2-THOR simulator by changing initial scene configurations

#### **Projects**

#### **Video Frame Interpolation**

July 2020 - Aug 2020

Jan 2020 - Aug 2020

- · <u>Video frame interpolation</u> by customising a state-of-the-art model with a discriminator from the Pix2Pix GAN
- · Trained model on the Vimeo-90k dataset with lower inference time than state-of-the-art models

· Built an autonomous shelf management robot that uses computer vision

- · Used the <u>YOLOv5 model</u> for robust object detection
- · Created a custom dataset for the supermarket use case

#### **Awards**

**REDRO** 

#### **SUTD ISTD Machine Learning Course Design Challenge Winner**

20 Dec 2019

 Attained the best accuracies for POS tagging of English and Chinese sentences with an averaged perceptron in SUTD's 01.112 Machine Learning course

#### DBS X GovTech X SUTD Smart City Challenge 2019 2nd Runner-Up

05 Apr 2019

· Automated calorie tracking by integrating DBS PayLah! and Healthy 365 with deep learning

## **Certifications**

AI for Industry - Practical Foundations in AI with Python (AI Singapore)
Data Scientist with Python (DataCamp)

Oct 2019 Oct 2019

### Languages

**English** Native proficiency

Mandarin Full professional proficiency