

Yuepeng Jiang

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Education

City University of Hong Kong **Aug. 2021 - present**

PhD in Computer Science; Supervisor: Prof Shuaicheng Li

University of California, San Diego **Sep.2019 - Mar.2021**

M.S. in Electrical and Computer Engineering (track: Machine Learning and Data Science) ;

GPA: 3.73/4.0

Zhejiang University(ZJU), Hangzhou, China **Aug.2015 - Jun.2019**

B.S. in Physics; Overall GPA: 3.54/4.0 (82.77/100)

Skills

Programming Language: Python, Matlab, Java

Framework: Pytorch, Tensorflow, Keras

Research Experience & Internship

Research Assistant **July. 2017 - Sep. 2017**

Center for High Pressure Science & Technology Advanced Research(HPSTAR), Shanghai

Research Assistant **Apr. 2020 - Jul. 2020**

SVCL Lab, University of California, San Diego

Research Assistant **Jun. 2020 - Nov.2020**

Under the supervision of Prof Sheng Wang, University of Washington

Visiting Student **May.2021 - July. 2021**

Under the supervision of Prof Yu Zhang, Southern University of Science and Technology

Selected **Solo** Projects

Bengali.AI Handwritten Grapheme Classification (Kaggle Competition)

<https://github.com/jiangdada1221/kaggleCompetition> **Feb.2020 - Apr.2020**

- Bengali is the 5th most spoken language in the world and it is mainly constructed by 168, 11, 7 types of grapheme root, vowel, and consonant respectively
- Built a multi-task convolutional neural network (CNN) to recognize the grapheme root, vowel, and consonant of a given handwritten Bengali image simultaneously
- Used Grid Mask augmentation method and spatial transforms to perform data augmentation
- Applied the technique of transfer learning. Fine-tune some base-bone models such as EfficientNet-B3 and MobileNet-V2. Ensemble models to get the final result
- Achieved 93.43% accuracy and ranked **112/2059(top 6%)** in the competition

Quadratically Constrained Quadratic Program **May.2020 - Jun.2020**

<https://github.com/jiangdada1221/QCQP>

- Summarized relaxations for solving non-convex QCQP problems and found conditions in which relaxations have no gap to the original problem
- Found sufficient conditions under which there exists hidden convexity in QCQP problems
- Compared the performance of a non-convex algorithm and semidefinite relaxation applied to a simple QCQP
- The Report is posted on the Github repository

Cheetah Separation

Oct.2019 - Dec.2019

<https://github.com/jiangdada1221/ECE271A-statistical-learning>

- Separated the cheetah from its background by using Bayesian methods
- Constructed feature vectors by computing DCT(Discrete Cosine Transform) value of each 8x8 block
- Applied Naive Bayes Model, Gaussian classifier, and GMM(Gaussian Mixture Model) for classification
- Accuracies of each model are 82.9%, 93.8%, 95.3% respectively

Spam Email Classifier

Oct.2019 - Dec.2019

https://github.com/jiangdada1221/spam_classifier_project

- Built a classifier for deciding whether a certain email is a spam or non-spam email
- Used Pandas and Numpy and Python regular expressions to clean up the data
- Used Naive Bayes Model, SVM(Support Vector Machine) and Logistic Regression algorithm to train the data
- Accuracy of the best model achieves 99.34%

Publications

- **BEV-Net: Assessing Social Distancing Compliance by Joint People Localization and Geometric Reasoning** (ICCV 2021, top conference in Computer Vision)

Zhirui Dai, **Yuepeng Jiang**, Yi Li, Bo Liu, Antoni B. Chan, Nuno Vasconcelos

- **DrugOrchestra: Jointly predicting drug response, targets, and side effects via deep multi-task learning** (RECOMB 2021, top conference in Bioinformatics)

Yuepeng Jiang, Stefano Rensi, Sheng Wang, Russ B Altman

Standard English Test

TOEFL: 102 (29-22-23-28) (Only take it once)

GRE: 332 (162-170-4.0) (Only take it once)

Personal Interest

Violin, I have a tenth-level certificate (highest standard test in China) and got the third prize in the 4th Violin Competition of Zhejiang Province in 2015. Since my childhood, playing the violin has been the best way for me to reduce stress

Coding, Thought I'm a late beginner in code writing, I've completed some funny projects:

- **Bearmap**, a simplified map application. Refer to the link for full information
- **Build-Your-Own-World**, a simple game requiring you to arrive at the exit within given time
- **Ants-Vs-Bees**, a simple game where you control the ants to defend the bees