**UOFFER GLOBAL**
31 Hurst Street
Birmingham B5 4BD
United Kingdom

# San Zhang

123 address St, UK, Postcode Email@Uoffer.com

High performing CS graduate with publications and solid experience in NLP. Proficient in Python, TensorFlow, and Keras. Strong expertise in image annotation and sentiment analysis using neural networks.

## EDUCATION

**Imperial College London** **2021 – Present**
MSc Advanced Computer Science (Expecting Merit Finish)

- Engineering focused programme with emphasis on exploring artificial neural networks, chosen pathway specialisation in natural language processing via deep learning.
- Relevant Modules: Advanced Machine Learning, Deep Learning, Big Data Systems.
- Applied for and obtained the highly competitive Imperial AI Research Grant.
- Thesis: *Automating Image Annotation Using Deep Learning and Knowledge Graphs.*

**Peking University (PKU)** **2017 –2021**
BSc Computer Science and Technology (GPA: 4.3/5.0)

- Part of the honourable *Yuanpei Pioneers' Class* of high-performing students.
- Relevant Modules: Algorithm Analysis, Database Systems, Object Oriented Programming.
- 1st Class University Scholarship, Outstanding Graduate.
- Thesis: *A Bayesian Approach for Social Media Sentiment Analysis.*

## RESEARCH EXPERIENCE

**Imperial College London** **2022 – Present**
Mentor-led Student Research Project

- Developed deep learning models using TensorFlow and Keras for automating image annotation from datasets containing over 100,000 images across 20 classes.
- Employed techniques such as data cleaning, feature engineering, and dimensionality reduction to prepare the data for analysis.
- Designed and implemented algorithmic sorting strategies using deep reinforcement learning, optimising sorting algorithms for large-scale datasets.
- Constructed knowledge graphs from research papers and patents using Natural Language Processing and Tensorflow to facilitate information retrieval.

**Imperial College London** **Jan –2022**
Tutored Workshop Series

- Constructed knowledge graphs from text data using Tensorflow and Spark.
- Implemented neural network models for natural language processing tasks with up to 96% accuracy in sentiment analysis and text classification.
- Processed and analysed large scale datasets from social media and e-commerce platforms.
- Developed efficient data processing pipelines and utilised distributed computing frameworks to handle large-scale datasets

**Peking University** **2020 –2021**
Departmental Level Student Grant Project

- Conducted extensive research on recommendation systems, focusing on collaborative filtering techniques. Developed and optimised recommender system algorithms based on collaborative filtering.
- Implemented a sentiment analysis classifier using Naive Bayes and Support Vector Machine algorithms, achieving a high accuracy in sentiment classification.
- Data mined Alibaba transaction records, comparing and classifying different product clustering mechanisms. Identified patterns in customer feedback and contributed to the optimisation of marketing strategies and product recommendations.

## PROFESSIONAL EXPERIENCE

**Quantdesk LLC** | London, UK **2022 – Present**
Assistant Analyst

- Built and optimised financial prediction models with time series data using ARIMA, SVR, and RNNs, achieving forecasting accuracy above 80%.
- Developed statistical arbitrage and pair trading strategies using Python and trading libraries, generating over 50% return on trades.
- Screened securities for fundamental factors and technical indicators, identifying 10 undervalued stocks.

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**JD Health** | Beijing, China **2020 –2021**
Intern Data Scientist

- Constructed a CNN-LSTM model in TensorFlow to identify disease mentions from given texts in Chinese.
- Applied bidirectional LSTMs to extract and classify over 10 types of medical entities from over 5000 clinical texts, demonstrating an F1 score of 88%.
- Performed sentiment analysis on health-related social media data, classifying over 100,000 posts using optimisation algorithms.

## PUBLICATIONS

**Zhang, S.**, Liu, J., & Wang, X. (2022). A Knowledge-aware Framework for Image Annotation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*.

- Proposed a knowledge-aware framework for image annotation that leverages knowledge graphs to capture annotation relationships, including a knowledge-aware context encoder that propagates information between related annotations.
- Designed an explanation module to visualise the annotation reasoning process.
- Experiments show that the framework performs on par with leading alternatives but requires less computational resources.

Chen, Z., **Zhang, S.,** & Wang, Y. (2021). A Survey on Multimodal Sentiment Analysis. *ACM Computing Surveys.* Volume 2(15), https://doi.org/10.XXXX/123123

- Surveyed the academic field of multimodal sentiment analysis, including NLP, computer vision and multimodal analysis which deals with a combination of text, image and video.
- Provided a taxonomy of existing methods for multimodal sentiment analysis is presented based on input combinations and fusion techniques.
- Revealed limitations and opportunities in the field and pointed out several promising future research directions.

## EXTRACURRICULARS

**Outreach Department of the PKU Student Union** | Beijing, China **2018 – 2020**
Deputy Director

- Organised 4 major outreach programmes for student events and charitable campaigns.
- Raised over ¥30,000 in donations for community infrastructure upgrades.
- Identified sponsorship opportunities and maintained relation with existing grants patrons.

**China Young Volunteers Association** | Beijing, China **2019 – 2020**
Student Volunteer

- Tutored underprivileged children and youth in computer programming and general digital literacy skills.
- Developed interactive educational materials and conducted individualised assessments to identify the specific needs of each student, then tailored the tutoring sessions accordingly.
- Organised a month-long public computer literacy workshop for 300 participants of all ages.

## AWARDS & QUALIFICATIONS

- **2nd Prize,** Kaggle Image Classification Competition **2021**
- **International Student Ambassador**, PKU Department of Computer Science **2020-2021**
- **1st Prize,** PKU Data Science Hackathon Champion **2020**
- **2nd Place,** Peking University's AI Knowledge Challenge **2019**
- **2nd Runner Up,** IJCAI National College Students' Data Analysis Contest **2019**

## SKILLS & LANGUAGES

- **Coding:** Python, R, MATLAB, SQL.
- **Frameworks:** Keras, TensorFlow, Power BI, Tableau, SAS.
- **Research:** Neural network-based machine Learning, NLP.
- **Languages:** English (Proficient), Mandarin (Native), French (A2) and Korean (Novice)
- **Fitness:** Competitive swimmer, attended the 2015 Beijing Youth Swimming Competition. Also, a free diver and cricket hobbyist.

## REFERENCES

Both professional and academic available upon request