

Curriculum Vitae

Chuer, CHEN

E-mail: chuerchen1998@gmail.com | Objective: PhD/Research Assistant

Education

Beijing Institute of Technology (BIT), P.R. China

09/2016-07/2020

- B.E. in Electronic Information.
- GPA: 3.8/4.0 (grades ranking 5/94)

National University of Singapore Suzhou Research Institute (NUSRI), P.R. China

09/2019-05/2020

- Exchange student in Electrical & Computer Engineering.
- Average Mark: 91.40

National University of Singapore

08/2020-07/2021

- Msc. in Electrical & Computer Engineering.
- GPA: 4.25/5.0

Project Experience

U.S. Patent Phrase to Phrase Matching

Kaggle

06/2022

- Analyzed the relationship of the word pairs (anchor and target) and combined the semantic relative data source as the input. Used cross-validation strategy and made train data stratified by score, grouped by anchor.
- Made the fine-tuning of DebertaV3/large model and trained it with BCELoss. Averaged the predictions of each fold's best model to get the score. The final result reached 0.8548 on the test set.

Control Strategies of Path Tracking Problem for Autonomous Driving

National University of Singapore

09/2020-04/2021

- Build the vehicle kinematics model and dynamics model. Realized LQR controller and MPC controller based on the vehicle models to control the vehicle motion following the track.
- Introduced differentiable MPC algorithm and applied it to realize lateral control of the vehicle. PID controller was used as the longitudinal controller.
- Compared four controllers based on their performance of path tracking problem in CARLA simulator.

Self-powered triboelectric-based smart gloves for hand gesture recognition using deep learning

National University of Singapore Suzhou Research Institute

09/2019-05/2020

- Made hemispherical triboelectric sensors and attached them on the 3D-printed gloves.
- Built an Augmented Reality scene in Unity to realize the control of the hand model.
- Built CNN-1D, CNN-2D, SVM models to recognize hand gesture by training one-dimensional signals. The accuracy of CNN-2D model is up to 99.375%.
- Use TCP/IP to transmit data between Python and Unity, so as to realize real-time control of objects in AR scene by gesture recognition result.

Work Experience

Frontend Engineer

Alibaba Group

07/2021-05/2022

- Optimized and iterated the No-Code platform that enable businesses to develop web page quickly without coding. Created some drag-and-drop components like text, picture, etc.
- Developed a new type of no-code web page building mode combined with rich text editor for picture-text web page. More than 300 pages have been created by this mode.

Extracurricular Activities

Student Union Activities

Served as the minister of International Communication Association in BIT's student union. 06/2017-06/2018

Social Practice

- Participated in Interactive Media summer camp of Tsinghua University. 07/2019
- Organized the social practise with the theme of intangible cultural heritage and won the “Outstanding Member” title. 08/2018

Awards

- “Beijing Excellent Graduate” title for top 5% students. 05/2020
- BIT’s “Huawei” scholarship. 11/2018
- First-class scholarship for top 5% students. 03/2017 & 09/2017 & 09/2018
- Second prize in Beijing Digital Integrated Circuit Design Contest. 06/2018
- Honorable Mention in the Interdisciplinary Contest in Modeling (ICM). 04/2018
- BIT’s “Huarui Century Outstanding Student” scholarship. 12/2017

Certificate & Programming Skills

Certificate: Deep Learning (Coursera)

Proficient in Python, Javascript, HTML, CSS

Fairly experienced in Pytorch, TensorFlow & Keras, MATLAB, C++/C.

Intermediate level in C#, Unity, Linux, MySQL, Verilog/VHDL.

Language: TOEFL(101), GRE(330)