



Lin YuChao

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TIMELINE

NanJing University	Sep 2016 - Jun 2020
Software Engineering B.S. Software Institute	NanJing
<ul style="list-style-type: none">GPA: 4.45 / 5.0Honors/Awards: National Scholarship; People's ScholarshipToelf: 101(R27 L24 S22 W28). The total highest section score is 107.GRE: 329+3.5	
Nanjing University	Jul 2020
Research Assistant	Prof. Yang Yu

RESEARCH EXPERIENCE

Simple Autocalibration Framework	Jul 2019 - Dec 2019
Independent Research	Prof. Yang Yu
Automatically obtain the extrinsic calibration parameters of a LiDAR sensor and a camera via an unsupervised depth estimator and heuristic optimization algorithm. Total works are three folds:	
<ul style="list-style-type: none">Proposed a simple and effective framework that uses unsupervised depth estimators to predict depth maps and optimizes the distances between predicted depth maps and miscalibrated projected depth images.Proposed a LiDAR interpolation toolbox including inverse distance interpolation, total generalized variation interpolation etc.Applying heuristic algorithms, i.e. simulated annealing and Bayesian optimization, to optimize the result.	
For further details please see code .	
Unsupervised Depth Estimation in Urban Road	Dec 2019 - Nov 2020
Independent Research	Prof. Yang Yu
Estimate monocular depth in the urban road using binocular images, and improve the performance by distilling the unsupervised stereo framework and applying pyramid window-based image distance loss. code (2021CVPR).	
Miscellaneous	
Lane Detector (Prof. Yang Yu), Road Segmentation (Prof. Yang Yu), NER Tagger (Prof. Xinyu Dai), etc.	

PROJECT EXPERIENCE

Large-Scale Legal Instrument System	Sep 2018 - Sep 2019
National Training Program	Backend Developer
A distributed legal instrument web system with the following functions: searching in millions of instruments; legal instrument recommendation. Source code private. My total works are three folds:	
<ul style="list-style-type: none">Building regex tools and data pipeline with Spark for extracting keywords from documents.Building the Elasticsearch component and the backend logical interface part and integrate them with multiple data sources.Applying a K-mean-based algorithm to construct connections between law text vectors and recommend the documents in the same class of K-mean result.	
Technologies: SpringBoot, Vue, (Java)Spark, Elasticsearch	
Citi Cup Financial Competition	Jul 2018 - Nov 2018
The Winning Prize (Top 20)	Technical Team Leader
A campus-based lend-lease platform with automatic risk assessment and investment recommendations. Code repositories . Video demo . My total works are two folds:	
<ul style="list-style-type: none">Building a full-stack distributed web template with basic functions incl. token authentication, Swagger document generation, caching, server logging, etc.Building the main machine learning part by classifying students' consuming records using BiLSTM and assessing the credit scores of every student using Logistic Regression.	
Technologies: SpringBoot(incl. Spring Security, Spring Cache, etc.), Vue, Flask, Pytorch	
Miscellaneous Project	
Web Template , P2P-Instance Messaging , etc.	

SKILLS & OTHERS

- Interests:** Pattern Recognition and Simulation, Deep Learning, Software System Developing
- Work:** Teaching Assistant of Operating System Class, Assistant of Psychological center of Nanjing University