# HAO WEN

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#### **OBJECTIVE**

Master student in University of Florida, seeking for full-time Artificial Intelligence Engineer roles.

### **EDUCATION**

M.S. in Electrical Computer Engineering, University of Florida

Sep' 2019 - Present

Courses: Pattern Recognition, Advanced Data Structure, Image Processing & Computer Vision, and IoT Design. GPA: 3.60/4.0

B.Eng. in Artificial Intelligence & Technology, South China University of Technology Sep' 2015 - July' 2019

Thesis: Electronic equipment failure detection and forecast analysis using SVM and LSTM

#### TECHNICAL SKILLS

Libraries & Tools
Git, LATEX, OpenCV, HTML5/CSS,
Frameworks
TensorFlow 2.0, Pytorch, MySQL

Languages Java, Python, SQL, Shell Script, MATLAB

#### EXPERIENCE

### Big Data & Machine Learning Analyst Intern

VIP Information Technology Co., Ltd

Apr. 2021 - July. 2021

Guangzhou, China

- Crawled POI data by using 'urlib' in Python, growth data storage are managed by MySQL.
- Developed a POI data retrieve service website based on RESTful APIs with Node.js
- Converted serialized POI data and segmented into fine-grained address (States, Cities, Districts, Streets)
- Advanced the mapping from longitude/latitude data to exact address using **Hidden Markov model (HMM)**, achieved 3% reduction in converting time.

## Research Intern STCA NLP Group

Apr. 2020 - Aug. 2020

Chinese Academy of Sciences, China

- Built an Interactive Dual **Generative Neural Networks (GNN)** for Image Captioning, enhanced the Network training speed with **Quantization Methods**.
- Improved knowledge-aware Dialogue Generation based on Qustioning Answering, applied it for multi-modal tasks with an overall improved performance.

### COURSE PROJECTS & RESEARCH

### Pattern Recognition Related Work

Nov. 2020 - Apr. 2021

- Constructed a CNN model on the embedded platform for image recognition, quantized the model to reduce overall running time on GPU while maintaining accuracy.
- Rebuilt a model based on Yolo-v3 for video recognition through Pruning, and gained faster running speed on GPU without reducing accuracy.
- Achieved the training time of the quantified AlexNet model reduced by 30% amid accuracy declined only 0.08.
- Improved the precision of Yolo-v3 model after pruning, achieved the recognition of each frame reduced by about 2 latency FPS and reached a more accurate recognition of the objects in a video than the original model.
- Collabrated in writing a paper and published on ICAITA 2021.

### **Internet Plus Competition**

Nov. 2020 - Jan. 2021

• Designed a control system for a 6-rotor Unmanned Aerial Vehicle (UAV) by applying a newly Proposed Convergent Differential Control Neural Network. Set up a newly-designed posture and attitude Controller for UAV model. Collaborated in writing a patents and won the Internet Plus Competition.

## PUBLICATIONS & AWARDS

- Xiao Hu, **Hao Wen**, "Research on Model Compression for Embedded Platform through Quantization and Pruning" (ICAITA 2021)
- Honerable Award in 2019 Mathematical Contest in Modeling of China
- The 6th China International College Students "Internet+" Innovation and Entrepreneurship Competition Silver Medal: (top 3%)