# Hugo Chen

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#### **Employment**

# Software Engineer Telexpress Sep 2018 – Present Voice Bot (Python)

- Lead developer for developing a voice chatbot system on PBX telephony system.
- Reduced 40% character error rate by developing a key words correction algorithm.
- Further improve the key words detection rate by 28.6% by building a customized ASR system.
- Developed a gender recognition based in voice and implemented on the voice chatbot system with 98% accuracy.
- Developed a voiceprint verification system.
- Improved an open source YouTube videos crawler to construct Mandarin ASR training dataset.

#### Chatbot (Python)

- Developed a text data augmentation system which combine several algorithms.
- Integrated SOTA NLP algorithm BERT to improve chatbot performance.
- Reviewed industry-academy cooperation projects for the company.

#### E-Commerce Platform (.Net Core)

- Developed backend microservice APIs for the platform.
- Integrated open source BI tool into the platform.
- Implemented business partner's decrypt algorithms in open source BI tool.

#### Customer Service Online Chat (.Net Framework)

- Implemented a new chatting channel on WeChat.
- Implemented business parter's decrypt algorithms in the system (Java).

#### **DevOps**

- Compile docker-compose yaml configurations for defining and running multi-container e-commerce platform microservices.
- Compile Kubernetes yaml configurations using Helm for automating deployment, scaling, and management of containerized e-commerce platform microservices.
- Setting up Jenkins pipelines for automated CI/CD.

#### Education

# Yunlin, Taiwan R.O.C. National Yunlin University of Sep 2016 – Aug 2018 Sciences and Technology

- M.S.E. in Computer Science and Information Engineering, Fall 2018. GPA: 4.0
- Thesis: "Semi-supervised Learning Using Generative Adversarial Networks"

# Taoyuan, Taiwan R.O.C. Chang Gung College

Sep 2011 - June 2015

• B.S.E. in Computer and Information Science, May 2015.

### Technical Experience

### Projects

- ShortUrl A highly scalable url shortener service to reduce a long link. Using flask, MongoDB, Redis, and host on DigitalOcean.
- **PhotoRater** An ios app written in swift which using Tensorflow to train a photo rating model and transfer to a Tensorflow Lite model and integrated in to the app.
- Insult Puppy A frontend practice project in which the insult contents come from Evil Insult Generator API and the Puppies images come from RandomDog API. Developed using Vue. Host on Netlify.
- Game of Life In memory of Dr. John Horton Conway. Developed using Python, SciPy, and OpenCV.
- Crypto Trading Gym OpenAi custom gym environment in order to train reinforcement learning agents to profit in crypto markets.
- Access Control System with Face Recognition and RFID An access control system which check both user RFID number and facial features to gain authorization. This system is currently being used in YunTech Research Center.

# • Kaggle Competitions:

- Google Cloud & YouTube-8M Video Understanding Challenge: Top 15% Bronze Medal.
- Statoil/C-CORE Iceberg Classifier Challenge: Top 14%.
- Mercedes-Benz Greener Manufacturing: Top 15%.
- Quora Question Pairs: Top 18%.

## Languages and Technologies

- **Programming Languages:** Python (fluent), C# .NET Core/Framework (proficient), SQL (proficient), JavaScript (proficient), Shell Script(proficient), Swift(prior experience), C/C++(prior experience), Java(prior experience).
- Technologies: Git, Docker, Flask, MongoDB, Redis, MySQL, Microsoft SQL Server, Vue, Tensorflow, PyTorch, Kaldi, OpenCV.
- Cloud Platforms: Google Cloud Platform, Azure, DigitalOcean, Netlify.