Bo-Cheng Chu

cbchu1117@gmail.com
(765) 714-6578
3645 Desoto Dr, West Lafayette, IN 47906

EDUCATION

Purdue University West Lafayette, IN
M.S. in Computer Science Aug 2020 – May 2022

National Taiwan University Taipei, Taiwan
B.S. in Computer Science Sept 2015 – June 2019

- *Overall GPA:* 4.00/4.30

WORK EXPERIENCE

McKinsey & Company Taipei, Taiwan
Machine Learning Engineer Intern Aug 2018 – Feb 2020

- Developed a number of object detection models with different structures, including R-CNN, SSD, YOLO, to detect components on electronics and the best precision reaches 90%
- Designed and developed a Windows app that serves a TensorFlow model, visualizes the output and provides several data processing modules
- Accelerated product design optimization by machine learning and Excel automation using Python

Gamemind Taipei, Taiwan
Software Engineer Intern July 2017 – Sept 2017

- Developed cron jobs to crawl data from Facebook and websites and insert data to database
- Designed and developed server-side web APIs in Python from scratch to get required data including querying MongoDB
- Developed modules to create customer persona by analyzing user interaction data and extracting user information

SELECTED PROJECTS

Neural Network as Neural Network Input Feb 2018 – June 2018

- Extended realm of graph benchmark dataset to computational graphs of neural networks
- Web scraped TensorFlow model files using GitHub API and annotated with associated meta data
- Benchmarked computational graphs using existing graph classification methods

Membership Inference Attack in IoT Services Mar 2018 – June 2018

- Conducted experiments and compared inference attack techniques on image classification models
- Investigated possible defense strategies and focused on adversarial regularization, which acts as a strong regularizer and significantly generalizes model
- Simulated a speech recognition system to validate the attack in a real-world situation

Deep Learning Applications Mar 2018 – June 2018

- Implemented a chatbot and a video caption generator by seq2seq with attention mechanism
- Implemented an anime character generator with ACGAN
- Implemented game-playing agents with several reinforcement learning algorithms, including Policy Gradient, DQN, and Actor-Critic

Automatic News Summarization Dec 2016 – Jan 2017

- Designed and developed an automatic summarizing system for an athlete's news and performance
- Used MMR and several query expansion methods to retrieve most relevant documents

SKILLS

- **Programming Languages**: C/C++, Python, MATLAB
- **Operating Systems**: GNU/Linux, MacOS, Windows
- **Deep Learning Frameworks**: PyTorch, Keras, TensorFlow