HUNG-YI (JOEY) CHEN

+1 (979)-308-5052 | joey1149@gmail.com | LinkedIn: Hung-Yi (Joey) Chen | GitHub: Hung-Yi Chen | **Address**: College Station, TX | Graduation: Dec, 2021

SUMMARY

Inquisitive tech enthusiastic graduate student with research experience, good academic performance as well as accumulated 2 years of work experience in cloud infrastructure development on network communication tracks. Experienced in developing, logging, testing, debugging, strong problem-solving. Currently actively looking for **2021 spring/summer** internship.

TECHNICAL SKILLS

- Programming Languages: C/C++, Python, Matlab, Perl, Bash/Linux, R, Git.
- Web Design: Django, Ruby on Rails, HTML, CSS, Javascript.
- Domain Knowledge: Computer Vision, Image Processing, Machine Learning, Automation Tests.

WORK EXPERIENCE

Software Development Engineer Apr 2018 – Jan 2020
NetApp, Inc.

- **Hardware Environment Diagnosis and Automation Test:** Improved the update deployment efficiency by 80% by leveraging networking, distributed systems, and automation technologies to develop a pipeline for firmware upgrades and hardware diagnostic functions for NetApp storage products, using Perl, C, Bash.
- **Created APIs for NetApp's internal development framework:** Provided easier access to integrate hardware diagnostic tools from NetApp US and India design groups, and the ODM (original design manufacturer) partners in Taiwan and China.
- **Quality Transient Test Tool:** A Linux-based tool run on all Linux systems and replace a CloudMe-based test tool, which is license-fee-required and limited to CloudMe-based servers.
- Outstanding Employee of the Month by pushing the product release a week ahead of schedule on diagnosis modules of NetApp product AFF-A320.

Research Assistant Mar 2015 – Apr 2017; Oct 2017 – Apr 2018
NTU DISP Lab

- **Fast Search Algorithm for Motion Estimation**: Proposed a new fast search motion estimation algorithm on video sequences and achieved a 0.3 PSNR gain.
- **Efficient Entropy Coding Algorithm for Motion Vectors in Video Compression:** Achieved 8.45% efficiency improvements, accepted by IEEE Transactions on Circuits and Systems for Video Technology.

Software Developer Intern Jul 2017 – Sep 2017
Fortiss GmbH, Munich, Germany

- **Quantized Neural Networks:** Built a transformation tool to generate quantized neural network based digit-recognition system for autonomous driving systems.
- **Formal Verification:** Encode the quantized neural network by pySMT tool, and check the satisfiability problem by Yices solver, in order to decide the robustness of the digit-recognition system.

EDUCATION

Texas A&M University, College Station, Texas Jan 2020 – PRESENT
Master of Science in Computer Science and Engineering GPA 4.0/4.0

National Taiwan University (NTU), Taipei, Taiwan Jun 2017
Master of Science in Electrical and Computer Engineering (Computer Engineering) GPA 4.05/4.3

- Awards: Class-A Teaching Assistantship; MOST–DAAD Scholarship: Research scholarship from the German Academic Exchange Service and the Ministry of Science and Technology.

National Chiao-Tung University (NCTU), Hsinchu, Taiwan Feb 2015
Bachelor of Science in Electrical and Computer Engineering GPA 4.07/4.3

- Awards: Summa Cum Laude (Top 8% in Graduation class); Academic Achievement Awards.

NOTABLE PROJECTS

The Culprits of flight delays: What causes flight delays? - Data Analysis, Python

- Identified critical delay factors to flights in the BTS dataset and outperforms the baseline model with the lowest loss value based on the DNN model. Analyzed improvements for preventing future flight delays.
- Features included delay feature visualizations, ridge regression and deep neural model prediction.

ACADEMIC PUBLICATION

[1] Improved Efficiency on Adaptive Arithmetic Coding for Data Compression Using Range-adjusting Scheme, Increasingly Adjusting Step, and Mutual Learning Scheme: *IEEE Transactions on Circuits and Systems for Video Technology* (TCSVT), 2018.