Yiran Su

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EDUCATION

- **the University of Texas at Austin**   Austin, TX, USA
  M.S. in Engineering, **Software Engineering and System** *track, ECE Dept.* **GPA**: *3.73/4*   *Aug. 2019 - May. 2021*

- **Sun Yat-sen University, School of Data and Computer Science**   Guangzhou, China
  B.E. in Network Engineering   **Overall GPA**: *3.85/5.00, top 10%,* **Junior GPA**: *4.25/5.00 Aug. 2015 - Jun. 2019*
  - **Course Highlights** Data Structure & Algorithms, Operating System, Computer Network, Web Programming

SKILLS

Programming Language C++, Python, Java, HTML, CSS, JavaScript, Kotlin, Shell, SQL, GoLang
Framework and Tools React Native, Flask, PyTorch, Tensorflow, Docker, MongoDB, Kubernetes

INTERN EXPERIENCE

- **Coherent Logix Inc.**   Software Dev Intern, May. 2020 - Aug. 2020, Austin, USA
  - Explored **neural network quantization** topics which is able to simplify the original model while keeping the original model precision and leverage RAM & power & time consumption.
  - Applied **16/8/4-bit** Quantization Aware Training (**QAT**) for **ResNet** and **MobileNet** with **Tensorflow 2** and controlled model accuracy drop within **3%** for 16/8-bit quantization circumstances.
  - Developed a set of **QAT generation & validation APIs** which enables transform from a non-QATed model to a QATed model and **compatible** with all sequential/functional models(self-defined, loaded, Keras-imported, etc.).

- **Tencent Inc.**   Software Dev Intern, Sept. 2018 - Mar. 2019, Shenzhen, China
  - A **pattern-based natural language parsing framework** in **Python** for a **task-oriented chatbot**.
  - Deployed on **Tornado** Server, handled **100k+ related requests** per day, optimized with **27% less latency**.
  - An **automatic** log analyzer in **Python** to evaluate user behavior (customer stickiness, feature performance, etc.)

- **Graduate Teaching Assistant**   EE 422C (**Java**), UT-Austin, Jan. 2020 - May. 2020
  - Led **24 lectures** about the most **crucial** Java concepts, including polymorphism, generic, multithreading, etc.

PROJECT EXPERIENCE

- **Share Your Review**   Course project for EE 382V at UT-Austin, Sept 2019 - Dec 2019
  - Backend: **MVC** structured **Flask** & **Flask-RESTful**. **Firebase Storage** and **PyMongo** applied.
  - Accomplished a **web** frontend with **HTML/CSS/Bootstrap** and embedded it into our Flask-RESTful backend.
  - Applied **Kotlin** in our **Android** frontend. Designed a **reusable cardview template** for the team. **Volley** to handle requests. Kotlin's **Camera & Location API** applied.
  - **React Native** frontend with **Expo**. Features include camera, location, **sharing** and **notification**.

- **Sun Yat-sen University Club Information Platform**   Mar 2018 - Jun 2018
  - **Android** frontend in **Java**. **Retrofit2** and **RxJava** applied. Web frontend in **HTML/CSS/JavaScript**.

- **2018 International Aerial Robotics Competition**   Computer Vision, Sept 2017 - Aug 2018
  - An **OpenCV(C++)**-based **SVM** (Support Vector Machine) implementation, with a self-implemented **HOG** (Histogram of Oriented Gradient) **descriptor**.

- **Distributed System Design**   MIT 6.824 online open course, Currently under progress
  - Implementing **MapReduce** and **Raft** in **Go**.

PUBLICATIONS

Manor, L., **Su, Y.**, et al. "**What is FAFSA? Interpreting non-technical jargon in domain-specific text**", COLING 2020, submitted.

- Introduced a FASFA **jargon-definition-context dataset** which enables further research for this common but incomprehensible (especially for outsiders) linguistic phenomenon.
- Proved the **computational linguistic association** between jargons, jargon definitions and corresponding context based on average **BERT pretrained embeddings** and made it learnable by using a simple **bi-linear model**.