Yiran Su

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Austin, TX

EDUCATION

- **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,* ***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.**   May. 2020 - Aug. 2020, Austin, USA
  - Explored **nerual network quantization** topics which is able to simplify the original model while keep 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.**   Sept. 2018 - Mar. 2019, Shenzhen, China
  - Developed a **pattern-based natural language parsing framework** in **Python** for a task-oriented Arena of Valor **chatbot** ”Lu Bu (Lv, Bu)”, while **reducing** the average latency by **27%** to **less than 90 ms**.
  - Deployed the above framework on a **Tornado** Server, which handled more than **100k related requests** per day.
  - Designed an **automatic** user log analyzer (**Python**) for the chatbot which is able to evaluate high-frequency request, customer stickiness and new feature performance.

- **Graduate Teaching Assistant**   Austin, USA
  *EE 422C Software Design and Implementation (**Java**) II*   *Jan. 2020 - May. 2020*

PROJECT EXPERIENCE

- **Share Your Review**   Austin, TX
  Course project for EE 382V: Advanced Programming Tools at the University of Texas at Austin   *Sept 2019 - Dec 2019*
  - Designed a **MongoDB** database with **PyMongo** as our project database. Carried out **unit testing** for all APIs.
  - Developed an **MVC**-structure backend with **Flask** & **Flask-RESTful**. Used **Firebase Storage** to store uploaded photos.
  - 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** as a public method for other team members. Utilized **Camera API** and **Location API** to provide our users with diverse uploading choices. Used **Volley** to handle review creation request.
  - Implemented the **React Native** frontend with **Expo**. Beside of the points mentioned in the Android part, we enabled **notification** and **sharing** features based on Expo components.

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 enable 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**.