JINGCHEN TANG

Phone: (669) 240-6115
tangtang1228@ucla.edu

LinkedIn | GitHub
Los Angeles | Hangzhou

EDUCATION

University of California, Los Angeles GPA: 3.92/4.0 — Sept 2019 – Mar 2023
Double Major of Computer Science & Applied Mathematics — Los Angeles

Courses: Data Structures & Algorithms; Operating System; Intro to Machine Learning; Database Management System; Deep Neural Networks

SKILL SETS

Programming Languages: C++, Python, Java, SQL, R, Matlab, JavaScript, HTML/CSS
Libraries: TensorFlow, PyTorch, React.js, npm, Numpy, pandas
Technical Frameworks: Node.js, Spark, Hadoop, Hbase
Other: Linux, Git, Docker, Google Cloud Platform

PROFESSIONAL EXPERIENCE

Beak Technology (Startup) — Jun 2022 - Present
Founding Frontend Developer — Los Angeles

- Devised front-end functionalities including searching/filtering, smart recommendation, and event polling using **React.js**;
- Collaborated with back-end team and implemented client side **google log-on** authentication for large scale user base and identity verification;
- Launched a MVP version of our event-planning web application in **a month**, gained 96% user satisfaction according to the feedback from UI/UX team.

Zhejiang Leapmotor Technology Co., Ltd. — Jun 2021 - Sept 2021
Software Development Engineer Intern — Hangzhou

- Executed the data migration of MySQL to ClickHouse for building the cloud platform to reduce searching time by **1/3** for more frequent queries;
- Resolved hotkey problem on HBase using **MapReduce**, by applying MD5 to alter the row keys to distribute them evenly among partitions;
- Created an **automatic scheduled system** searching over databases and reporting anomaly daily which would need to be done manually otherwise;
- Advised and proposed an on-board music recommendation system algorithm using **User-Based Collaborative Filtering** given limited user info.

PERSONAL PROJECTS

Natural Language Processing Project — Jan 2022 - Mar 2022

- Finetuned pre-trained $\text{BERT}_{\text{BASE}}$ model to solve common sense reasoning problems, and generate plausible explanations for predictions;
- Processed data from **Com2Sense** and **SemEval** datasets, trained with best-performing hyperparameters on **Google Cloud Compute Engine**;
- Built efficient NLP pipeline, improved pairwise accuracy by around **10%** and reduced the cost of computing resources by **26%**.

Full-stack App: Calendar for International Students during Pandemic — Sept 2020 - Dec 2020
Frontend Development (GitHub link: https://github.com/BULAIENTANG/Smart-Calendar-Frontend)

- Used **React.js** to implement Calendar's main function, **Axios** to call backend server and database developed with **Node.js** and **MySQL**;
- Composed the time-zone dependent event auto-adjustment and designed the layout of the homepage with **MaterialUI**;
- Implemented the feature of Drag-and-Drop to allow fast creation and moving of an calendar event, and realized the hover-for-detail function.

Take-away Navigation Route Planning System (C++) (GitHub link: https://github.com/BULAIENTANG/Goober-Eats) — Jan 2020 - Mar 2020

- Built hash tables to store geo-location information to achieve constant-time query and retrieval of information;
- Utilized **A* algorithm** to implement point-to-point routing, applied **Simulated Annealing** to realize optimal route planning among destinations

RESEARCH EXPERIENCE

UCLA Machine Intelligence Group — May 2022 - Present
Undergraduate Researcher — Los Angeles

- Implemented Statistical Climate Downscaling using **Super-Resolution CNN** on European Geo-Climate data over the past five decades;
- Outperformed the current methods by around **5%** by changing the patch size and utilizing the latent time sequential information for **transformers**;
- Participated in building a standardized framework for large-scale benchmarking of **Statistical Downscaling** methods with Python.

Adversarial Attack on GNN (GitHub link: https://github.com/BULAIENTANG/Hard_Label_Black_Box_Attack_GNN) — Mar 2022 - Jun 2022
Los Angeles

- Devised and Proposed the first **hard label black-box** node injection attack on GNN to the best of our knowledge;
- Improved attack success rate by over **7%** compared with the original literature using single node-injection, random node feature initialization along with edge perturbation over entire graph.

HONORS & AWARDS

UCLA Dean's Honors list for Superior Academic Achievement — Since Spring 2020
University of Waterloo Euclid Mathematics Competition Top 5% Globally — April 2018
American Mathematics Competition (AMC12) Top 25% Globally — Feb 2017