Boyu CHEN

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EDUCATION

University of California, San Diego   **San Diego, CA, U.S.**
M.Sc in Electrical and Computer Engineering   *Sep. 2021 - Mar. 2023*
Selected Courses: Data Structure, Networked Systems, Computer Architecture, Computer Vision

Zhejiang University   **Hangzhou, Zhejiang, China**
B.Eng in Electrical Engineering   *Sep. 2016 - Jun. 2020*

SKILLS

- **Programming Languages:** Golang, Java, C/C++, Python, HTML/CSS, JavaScript, SQL, Matlab
- **Framework Toolkit:** Docker, Bootstrap, Spring Boot, React, Vue, Node.js, Git, Ajax, Flask, Express, RESTful, socket, MongoDB, Django

EXPERIENCES

iFLYTEK Co., Ltd.   **Hangzhou, Zhejiang, China**
Software & Machine Learning Intern, iFLYBUDS Consumer Business Group   *Jul. 2020 - Dec. 2020*

- Collected individual words from voice conversion engine; performed data cleaning; reorganized them into complete sentences according to natural language semantics; deployed the project via **python-flask**
- Analyzed conversation contents; utilized **Logistic Regression** to identify unstable network(90% accuracy)
- Implemented **TextRank** algorithm by calculating cosine similarity; extracted top 2 sentences as article summary

Purdue University   **West Lafayette, IN, US**
Research Assistant, Advisor: Meng Cui   *Jul. 2019 - Sep. 2019*

- **Deep Fog Imaging:** Built a spatiotemporally-gated detection system to filter out deep fog(scattering background and shot noise); yielded high resolution and contrast image; published the results on *Optics Express*
- **Real-time Image Stabilization:** Generated triangle signals in vertical directions to control laser scanning speed; collected data gravity core as feedback for real-time image motion tracking and correction(200Hz)

SELECTED PROJECTS

YelpCamp Interactive Web Development   *Jul. 2022 - Aug. 2022*

- Deployed webpage with **Bootstrap**, used **Express** and **MongoDB** for realizing **RESTful API**
- Developed sign-in API(account & password creation) with **Passport.js** and **Node.js**
- Invoked Google Maps API to provide location guiding; implemented user data saving module

HIV-TRACE Graph Representation in C++   *May 2022*

- Pre-processed HIV sequence data via **ifstream**(max: 10,000 edges), modeled it abstractly as undirected graph
- Implemented **Dijkstra's Algorithm** to find the shortest path and connected threshold given two patients

SurfStore Cloud Storage Service based on Dropbox   *Mar. 2022*

- Initiated interfaces for file saving and indexing in server and **gRPC** clients, allowing multiple concurrency
- Synchronized files with newer version from cloud to local client; updated new/modified local files to server
- Handled conflicts following "**whoever syncs first wins**"; deleted files with hash value of 0("tombstone")

A Preference-based Analysis of US Cities' Livability   *Mar. 2022*

- Normalized scores(30,000 cities, 16 columns); depicted heatmap for correlation coefficients via **seaborn**
- Performed **K-means** clustering; divided traits to 4 groups based on correlation and subjectivity
- Assigned weights for groups; calculated scores and visualized the best 10 cities on interactive map by **folium**

TritonHTTP(HTTP/1.1) Network Protocol Implementation in Golang   *Jan. 2022 - Feb. 2022*

- Formalized and validated requests; acquired file contents and wrote response with **bufio**
- Invoked the **net** package to built **TCP** connection; processed pipelined requests; closed dialing when required
- Handled requests; generated statuscode and response headers accordingly; achieved reliable data transmission