Jiani WANG

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EDUCATION

Stanford University   **Palo Alto, CA, US**
M.S. in Computer Science   *Sept.2021 – June 2023 (Expected)*
Tsinghua University   **Beijing, China**
Bachelor of Engineering   *Sept. 2016 – July 2020*
- **GPA: 3.80/4.0** (Ranked 2/26); **CS courses GPA: 3.82/4.0**

WORK EXPERIENCE

ByteDance – Parent Company of TikTok   **Beijing, China**
Software Engineer (Full-time), System and Networking Department   *July. 2020 – May. 2021*
- **Excellent New Employee Award**: Granted "ByteDance Spot Bonus" Award because of excellent work contribution
- **Datacenter Network Management System Development:** Intent-Based Networking (IBN) System
  * Systematically designed and implemented reliable software to automatically manipulate and monitor thousands of switches, including network status collecting, switches provisioning, fault replacement and routine status check
  * Used and maintained IBN system in ByteDance's global datacenter to deploy 3k+ new switches and manage over 10k of switches' and routers' status using **MySQL**, caching collected real-time network status in **Redis**
  * Reduced over 50% datacenter deployment time and automatically solved hundreds of networking status anomalies; Divided code into pluggable components and realized fast enabling and disabling in global datacenters
- **Web application Development**: A full-stack website for datacenter status visualization and statistics analysis
  * Created a website with **Vue.js** and help users to query, operate and manage equipment in datacenter
  * Implemented front-end display using JavaScript, CSS, HTML and developed back-end with **Flask**, MySQL, and Redis which can simultaneously handle multiple operations from users; Provided **Restful API**s for front-end data display; Used **Axios** to make HTTP calls and enabled cross-origin requests by **Nginx**
  * Built and maintained a visualization dashboard for networking status monitoring and statistic with Echarts, HTML and CSS that enables the whole System Department to provide assistant information in network fault diagnosis

Procter & Gamble Company, Data Modeling Group & Tsinghua University   **Beijing, China**
Research and Software Intern   *Jan. 2018 - Dec. 2018*
- **Application of visual semantic segmentation on large-scale realistic dataset of P&G consumers**
  * Applied state-of-the-art semantic segmentation method to a realistic consumers' teeth dataset to extract teeth feature and achieved high segmentation accuracy, which helped P&G to diagnose the effectiveness of P&G products
  * Implemented several data normalization and data cleaning methods to eliminate the irregularity in realistic scene dataset and ensembled models to achieve mean IoU of 0.40

KEY SKILLS

- **Languages**: C/C++, Python (PyTorch), Java, JavaScript, SQL, Shell, Matlab, HTML, CSS
- **Frameworks & Tools**: MySQL, Redis, Vue.js, Flask, Django, Git, NGINX, Docker, GDB, CMake

SELECTED PROJECT

Android Application Development: An Information Release Platform of Student Activities   *Sept. 2018 – Dec. 2018*
- Designed and realized the Android Application and backend server named "iKnow", a product aiming at providing a platform for student organization to release activity information and advertise their activities
- Developed server-end software using Python; Implemented mobile application using Java and Android Studio

Multiple 3D Data Modality Fusion and Application in object recognition | Tsinghua University   *Sept. 2018 - Jan. 2019*
- Introduced Hypergraph Convolution into multiple 3D data modalities fusion (including three modalities of 3D data: point cloud, multi-view and mesh) and achieved high robustness in ModelNet40 dataset
- Extended Hypergraph Convolutional Networks to a generalized version which can fuse different types of data, e.g., natural language and image data fusion of Weibo dataset and achieve high robustness