YUHANG SONG

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EDUCATION

Boston University PhD Student in Computer Science	Boston, MA Sep 2024 – Present
Boston University Master of Science, Computer Science	Boston, MA Sep 2022 – May 2024
South China University of Technology Bachelor of Engineering, Software Engineering	Guangzhou, China Sep 2017 - Jun 2021
EXPERIENCE	
 AI Framework Engineer Intel Asia-Pacific Research & Development Ltd Contributed to the oneDNN backend Graph Compiler, focusing on enhancing de including fusion, loop rescheduling, graph inlining, and optimization using SIMI Implemented various elementwise and graph operators, including normalization Developed graph patterns, such as MHA, to identify and optimize performance between the second se	Aug 2021 - Aug 2022 Shanghai, China eep learning speeds, D intrinsics. and VNNI reordering. pottlenecks.
 Software Engineer (Internship) Tencent Developed a full-stack internal-use test case management system using Tornado Created internal data visualization panels to display statistical data using Grafana 	Jun 2020 - Sep 2020 Guangzhou, China and React. a.
PROJECT & RESEARCH	
 Accelerating Large-Scale GNN Training with Programmable SSDs MS Thesis under Professor Vasiliki Kalavri. Utilized Vitis HLS for FPGA onboa enabling direct sampling without transferring entire dataset to host memory. Brings computation closer to SSD, conserving PCIe bandwidth for large-scale G Fine-Tuning Pretrained Vision Transformer Models Fine-tuned models based on NAT, DiNAT, MaxViT, and DaViT, achieving ima accuracy comparable to state-of-the-art models on the iNaturalist Dataset. Analyzed structural differences among various vision transformers. 	Sep 2023 – April 2024 ard programming, iNN sampling. <i>Feb 2023 - May 2023</i> ge classification
 Parallel Programming of "Group-By" Operation Simulated "Group-By" operation of databases and calculated the group number of Grouped data based on prefix and used OpenMP for parallel processing and MP operation, distributing the computation task to each node and aggregating the rest 	<i>Mar 2020 - Jun 2020</i> of random numbers. I for cross-node parallel sults.
 Design of Short Video Copyright Detection Algorithm Designed an approximate detection method to search for short video clips in long Used SIFT to extract feature points and FAISS vector database to build a long vi Performed hierarchical matching and sliding window to achieve an accuracy of a 	<i>Sep 2019 - Nov 2019</i> g videos. ideo feature library. a 5-second range.
 UWP-Based Property Management System Created frontend of property management system using C++ and Universal Win Developed backend with Python and Django, implementing RESTful APIs for c 	<i>Jun 2019 - Sep 2019</i> dows Platform. ommunication.
HONORS & AWARDS	
 1st Scholarship of South China University of Technology 2nd Prize of CCF National Olympiad in Informatics in Provinces 	