Dujian Ding

Phone: +1 778 322 7129 Email: dujian.ding@gmail.com Website: https://dujianding.github.io

EDUCATION University of British Columbia, Vancouver, Canada Sept. 2019 - Present

Ph.D. in Computer Science

Anticipated Graduation: May, 2025

Simon Fraser University, Vancouver, Canada Sept. 2016 - May 2019

B.Sc. in Computer Science, Dual Degree Program with Distinction

Zhejiang University, Hangzhou, China

Sept. 2014 - Jun. 2019

B.Eng. in Computer Science and Technology, Dual Degree Program with Distinction

RESEARCH INTERESTS Efficient ML Models, Hybrid ML Inference.

Bring Efficiency Into & Onto Machine Learning.

EXPERIENCE Research Assistant - Prof. Laks V.S. Lakshmanan Sept. 2019 - Present

University of British Columbia

Vancouver, BC, Canada

June 2024 - Sept. 2024

Research Scientist Intern - Dr. Ankur Mallick

M365 Research, Microsoft Redmond, WA, U.S.

Research Scientist Intern - Dr. Subhabrata Mukherjee June 2023 - Aug. 2023 MSR, Microsoft Redmond, WA, U.S.

Applied Scientist Intern - Dr. Nagesh Panyam

Sept. 2022 - Dec. 2022 Sunnyvale, CA, U.S.

Alexa AI, Amazon

Research Assistant - Prof. Martin Ester Simon Fraser University

May 2018 - Dec. 2018 Vancouver, BC, Canada

PUBLICATIONS BEST-Route: Adaptive LLM Routing with Test-Time Optimal Compute

Under Review

Dujian Ding, Ankur Mallick, Shaokun Zhang, Chi Wang, Daniel Madrigal, Mirian Del Carmen Hipolito Garcia, Menglin Xia, Laks V. S. Lakshmanan, Qingyun Wu, Victor Rühle

Semantic Scheduling for LLM Operating System

Under Review

Wenyue Hua, Dujian Ding, Yile Gu, Yujie Ren, Kai Mei, Yicheng Zhang, Minghua Ma.

Navigating the Prompt Space: Supervision Matters in CoT When Reasoning Misleads

 $Under\ Review$

Xiang Zhang, Juntai Cao, Chenyu You, **Dujian Ding**

EcoAct: Economic Agent Determines When to Register What Action

Reasoning and Planning for LLMs Workshop at ICLR, 2025

Shaokun Zhang, Jieyu Zhang, Dujian Ding, Mirian Del Carmen Hipolito Garcia, Ankur Mallick, Daniel Madrigal, Menglin Xia, Victor Rühle, Qingyun Wu, Chi Wang

OCCAM: Towards Cost-Efficient and Accuracy-Aware Classification Inference

ICLR, 2025

Dujian Ding, Bicheng Xu, Laks V.S. Lakshmanan

PASS: Pruning Attention Heads with Almost-sure Sparsity Targets TMLR, 2024

Dujian Ding, Ganesh Jawahar, Laks V.S. Lakshmanan

LLM Performance Predictors are good initializers for Architecture Search ACL Findings, 2024

Ganesh Jawahar, Muhammad Abdul-Mageed, Laks V.S. Lakshmanan, Dujian Ding

Hybrid LLM: Cost-Efficient and Quality-Aware Query Routing ICLR, 2024

Dujian Ding, Ankur Mallick, Chi Wang, Robert Sim, Subhabrata Mukherjee, Victor Rühle, Laks V.S. Lakshmanan, Ahmed Hassan Awadallah

On Efficient Approximate Queries over Machine Learning Models VLDB, 2023

Dujian Ding, Sihem Amer-Yahia, Laks V.S. Lakshmanan

Uncovering the subtype-specific temporal order of cancer pathway dysregulation

PLOS Computational Biology, 2019

Sahand Khakabimamaghani, **Dujian Ding**, Oliver Snow, Martin Ester

Collaborative Intra-tumor Heterogeneity Detection

Bioinformatics, 2019

Sahand Khakabimamaghani, Salem Malikic, Jeffrey Tang, Dujian Ding, Ryan Morin, Leonid Chindelevitch, Martin Ester

SERVICE

PROFESSIONAL Serving as reviewers for ICML 2025, ICLR 2025, SIGMOD 2025, SIGMOD 2024, VLDB 2023 (PVLDB 16), VLDB 2022 (PVLDB 15), RecSys 2022, WWW 2020.

> Serving as the session chair for Session E7 (Trajectories & Time Series), VLDB 2023, Vancouver, Canada.

Volunteering for VLDB 2023, Vancouver, Canada.

TALKS On Efficient Approximate Queries over Machine Learning Models

Session U6 (Scalable ML III), VLDB 2023, Vancouver, Canada Aug. 2023

Hybrid LLM: Model Orchestration across Edge and Cloud

JEM Intern Talk Session 3, MSR Aug. 2023

HONOURS & ICLR 2025 Financial Assistance Award Mar. 2025 **AWARDS** Awarded the B.Sc. Degree with Distinction Aug. 2019

Undergraduate Student Research Award Mar. 2018 Undergraduate Open Scholarship Apr. 2018 Sept. 2017 Undergraduate Open Scholarship SFU-ZU Dual Degree Program Entrance Award Sept. 2016