

Curriculum Vitae

Caixiang Fan

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Personal Information

Office Address: ECERF W6-081, Faculty of Engineering,
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Education

Graduate:

Ph.D., Software Engineering and Intelligent Systems, 2023 (Expected) 4.0/4.0
University of Alberta, Edmonton, Canada

M.Sc., Software Engineering and Intelligent Systems, 2019 3.8/4.0
University of Alberta, Edmonton, Canada

Undergraduate:

B.M., Management Information Systems (with distinction), 2012 3.85/4.0
University of Electronic Science and Technology of China (UESTC), Chengdu, China

Professional Experience

2019-01 ~ present Graduate Research Assistant
Performant and Available Computer Systems (PACS) Lab
University of Alberta, Edmonton, AB, Canada

2020-09 ~ 2021-01 Mitacs Accelerate Program Intern (Remote)
Mitacs & ReWatt Power Inc.
Edmonton, AB, Canada

2019-01 ~ 2020-12 Graduate Researcher
Future Energy Systems, Canada First Research Excellence Fund
University of Alberta, Edmonton, AB, Canada

2018-01 ~ 2019-01 Graduate Researcher
3Leafs Inc. & IDOBE Research Group
Edmonton, AB, Canada

2018-01 ~ present Lecture/Lab Teaching Assistant (ECE321/ECE492/ECE491/ECE322)
Department of Electrical and Computer Engineering
University of Alberta, Edmonton, AB, Canada

Refereed Publications

- C. Lin, N. Mahmoudi, **C. Fan** and H. Khazaei, "Fine-Grained Performance and Cost Modeling and Optimization for FaaS Applications," in IEEE Transactions on Parallel and Distributed Systems, 2022, doi: 10.1109/TPDS.2022.3214783.
- C. Fan**, C. Lin, H. Khazaei and P. Musilek, "Performance Analysis of Hyperledger Besu in Private Blockchain," 2022 IEEE International Conference on Decentralized Applications and Infrastructures (DAPPS), 2022, pp. 64-73, doi: 10.1109/DAPPS55202.2022.00016.
- C. Fan**, H. Khazaei, Y. Chen and P. Musilek, "Towards A Scalable DAG-based Distributed Ledger for Smart Communities," 2019 IEEE 5th World Forum on Internet of Things (WF-IoT), Limerick, Ireland, 2019, pp. 177-182, doi: 10.1109/WF-IoT.2019.8767342.
- C. Fan**, S. Ghaemi, H. Khazaei and P. Musilek, "Performance Evaluation of Blockchain Systems: A Systematic Survey," in IEEE Access, vol. 8, pp. 126927-126950, 2020, doi: 10.1109/ACCESS.2020.3006078.
- C. Fan**, 2019. Performance Analysis and Design of an IoT-Friendly DAG-based Distributed Ledger System. Master of Science Thesis. University of Alberta.
- C. Fan**, S. Ghaemi, H. Khazaei, Y. Chen and P. Musilek, "Performance Analysis of the IOTA DAG-based Distributed Ledger", ACM Trans. Model. Perform. Eval. Comput. Syst. 6, 3, Article 10 (September 2021), 20 pages. <https://doi.org/10.1145/3485188>

Referred Conferences

- C. Fan**, C. Lin, H. Khazaei and P. Musilek, (April 2019). *Performance Analysis of Hyperledger Besu in Private Blockchain*. Paper presented at the 2022 IEEE International Conference on Decentralized Applications and Infrastructures (DAPPS) in Newark, CA, USA.
- C. Fan**, H. Khazaei, Y. Chen and P. Musilek, (April 2019). *Towards A Scalable DAG-based Distributed Ledger for Smart Communities*. Paper presented at the 2019 IEEE 5th World Forum on Internet of Things in Limerick, Ireland.
- C. Fan**, H. Khazaei, Y. Chen and P. Musilek, (May 2019). *A Blockchain Solution for Distributed Energy Transactions in Microgrids*. Poster presented at the 2019 Future Energy Systems Research Symposium, University of Alberta, Edmonton, AB, Canada

Awards & Honors

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| 2022-12 | Alberta Graduate Excellence Scholarship at UofA, Edmonton, AB, Canada |
| 2022-08 | J Gordin Kaplan Graduate Student Award at UofA, Edmonton, AB, Canada |
| 2021-11 | Alberta Graduate Excellence Scholarship at UofA, Edmonton, AB, Canada |
| 2020-11 | Alberta Graduate Excellence Scholarship at UofA, Edmonton, AB, Canada |
| 2019-04 | Mary Louise Imrie Graduate Student Award at UofA, Edmonton, AB, Canada |
| 2012-06 | Outstanding Graduate Awards at UESTC, Chengdu, SC, China |
| 2011-06 | China Resources (CRC) scholarship at UESTC, Chengdu, SC, China |
| 2010-06 | People's First-Class Scholarship at UESTC, Chengdu, SC, China |
| 2009-06 | People's Second-Class Scholarship at UESTC, Chengdu, SC, China |