Hamidreza Ramezani-Kebrya

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Work

TELUS Software Engineer Contractor

May 2023 - Jan 2024

EXPERIENCE

- Develop and test an SDN mediation layer to translate the vendor proprietary management of network equipment functions and protocols into an open and standard API into the network.
- Use Cisco NSO to develop the mediation layer that is mainly made up of service and action packages.
- Write automated tests to validate service and action packages.

UBC Teaching Assistant (Distributed Systems)

Jan 2022 - Dec 2024

- Support students to build a large-scale distributed key-value store on a cloud testbed.
- The Key-value server is supposed to meet different criteria like Sequential Consistency, At-Most-Once Semantic, Fault Tolerance, Scalability, Performance, and Availability.

IST Austria Research Intern

Aug 2020 - Aug 2021

- Add quantization scheme into NVIDIA Collective Communication Library.
- Have 2x speed-up without losing significant accuracy.
- Have 20% speed-up in training transformers when pytorch uses QNCCL as the communication backend.

EPFL Research Intern

Jun 2019 - Aug 2020

2022 - 2024

2014 - 2019

EDUCATION

M.A.Sc., Computer Engineering, University of British Columbia B.Sc., Computer Engineering, Amirkabir University of Technology

PUBLICATIONS

Hamidreza Ramezanikebrya, and Matei Ripeanu. (re)Assessing PiM Effectiveness for Sequence Alignment. In 30th International European Conference on Parallel and Distributed Computing (Euro-Par'24), August 26–30, 2024 **Best Paper Award Nominee**.

Ilia Markov, Hamidreza Ramezanikebrya, and Dan Alistarh. CGX: Adaptive System Support for Communication-Efficient Deep Learning. In 23rd International Middleware Conference (Middleware'22), November 7–11, 2022

Best Paper Award Runner-up.

TECHNICAL SKILLS Programming and scripting Languages: Java, Scala, C, C++, C#, Cuda, Python, Bash. Tcl

> High-Performance Computing tools and models: Roofline, Intel Advisor, Perf, RAPL, Likwid, OpenMP, PThreads

> Tools and IDEs: Git, Gdb, Cuda-gdb, Vim, JetBrains developer tools, NetBeans, Eclipse

Data serialization formats: XML, JSON, Protocol Buffers

Other: Linux, LATEX, Web development, Docker, Cisco NSO, Postman, Yang, CICD, Kubernetes, GKE, GCP, AWS, Helm, Terraform, Packer