

Software engineer with 4+ years of work experience in modern C++, Go, and Python. Keen on algorithms, data structures, and low-level systems performance.

## Work Experience

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|---|---------------------|-------------------|
| Software Engineer, <b>Lorica Cybersecurity</b>  | C++, FHE            | Oct 2020–Current  |
| · Working on performance and applications of Fully Homomorphic Encryption                 |                     |                   |
| Visiting researcher, <b>Massachusetts Institute of Technology</b>                         | Python, C, C++, AWS | Jun 2019–Aug 2019 |
| · Improved accuracy/battery usage trade-off of a movement tracking device by 10%          |                     |                   |
| · Designed and implemented secure logging/monitoring using mTLS for devices               |                     |                   |
| Software Engineer, <b>Cafebazaar Inc.</b>   | Go, C++, Python     | Oct 2015–Sep 2018 |
| · Worked on android app market (30m+ users) and classified ads (15m+ users)               |                     |                   |
| · Lead the ad classification team, implemented a document similarity metric in Tensorflow |                     |                   |
| · Improved automatic ad reviews by 15% using the document similarity metric               |                     |                   |
| · Designed and implemented query prediction from scratch using tries                      |                     |                   |
| · Optimized prediction rtt to less than 1ms, 100× improvement over Elasticsearch          |                     |                   |
| · Implemented Kubernetes control subsystem in our bare-metal cluster manager              |                     |                   |
| · Rewrote a search system as stateless microservices, deployed to Kubernetes              |                     |                   |
| · Improved search rtt by a factor of 10 by designing an efficient sharding scheme         |                     |                   |
| · Lead the redesign of a coding interview stage   |                     |                   |
| · Conducted 50+ interviews, helped grow from 100 employees to 350                         |                     |                   |

## Education

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|--|-------------------|
| <b>University of Toronto:</b> M. Sc. Computer Science  | Sep 2018–Oct 2020 |
| · GPA: 4.0   |                   |
| · Thesis: Black box migration of data structures over RDMA ( <a href="https://farnasirim.com/thesis">https://farnasirim.com/thesis</a> ) |                   |
| <b>Beheshti University:</b> B. Sc. Computer Science  | Spe 2013–Jun 2018 |
| · GPA: 18.55/20, Ranked 1 <sup>st</sup> in class   |                   |
| · Final project: Mountain road planning using Delaunay Triangulation and Ant Colony  |                   |

## Other Skills

In-depth knowledge of RDMA, Linux userspace programming API, and shell scripting  
Working knowledge of TLS, gRPC, microservices, and distributed systems design  
Bronze medalist in 2018 National Mathematics Competition  
ICPC Regional contest champion, advanced to 2017 World Finals (placed 56th)