NODIR KODIROV

knodir@cs.ubc.ca ◇ https://cs.ubc.ca/~knodir ◇ https://github.com/knodir
201-2366 Main Mall, Vancouver, B.C. Canada, V6T 1Z4

EDUCATION

University of British Columbia September 2013 - Present
Ph.D. in Computer Science *Vancouver, BC, Canada*

I am broadly interested in Systems research. I focus on resource allocation and networking in datacenter. Recently, I have been working on challenges of running Network Functions at datacenter scale. I am advised by Ivan Beschastnikh in the Networks, Systems, and Security laboratory.

Konkuk University September 2008 - August 2010
M.Sc. in Computer Science & Engineering *Seoul, Republic of Korea*

Thesis: *Enhancing eCos with EDF Scheduling and Lock-Free buffer* with Prof. Doo-Hyun Kim.

Tashkent University of Information Technologies September 2004 - June 2008
Bachelor in Information & Communication *Tashkent, Uzbekistan*

Thesis: *Organization of working with confidential information in electronic document exchange* with Prof. Rustam Khamdamov.

WORK EXPERIENCE

ZeroStack Inc. September 2016 - November 2016
MTS Consulting Engineer *Mountain View, CA, USA*

Continued to work on enterprise applications performance in parallel with my graduate study.

ZeroStack Inc. May 2016 - September 2016
MTS Intern; Enterprise Application QoS in OpenStack *Mountain View, CA, USA*

Extended my work from previous internship to focus on enterprise workloads. Evaluated and fine-tuned several (clustered) applications, such as Hadoop, Memcache, Redis, MySQL and Jenkins for improved performance with better VM volume placement decisions. Developed OpenStack Cinder scheduler(s) to provide storage locality.

ZeroStack Inc. January 2016 - April 2016
MTS Consulting Engineer *Mountain View, CA, USA*

Continued to work on network, storage QoS of private clouds in parallel with my graduate study.

ZeroStack Inc. May 2015 - December 2015
MTS Intern; OpenStack Networking *Mountain View, CA, USA*

Mainly worked with Neutron. Evaluated different network configuration and fine-tuned OpenStack networking for performance and scalability. Also developed OpenStack network benchmark framework.

Electronics and Telecommunications Research Institute September 2010 - July 2013
Member of Engineering Staff *Daejeon, Republic of Korea*

Cloud Data Center Networking project (March 2012 - July 2013)

The project aimed to automate/optimize virtual machine networking. I developed Edge Control Protocol (ECP), and Virtual Station Interface Discovery and Configuration Protocol (VDP) on ZebOS Network Platform. Both of these protocols are based on IEEE 801.1Qbg standard.

Cloud Computing Management project (September 2010 - March 2012)

The scope of this project was to build a framework to manage compute, storage, and network resources of the Virtual Machines in the Cloud.

RESEARCH EXPERIENCE

Graduate Teaching and Research Assistant September 2013 - Present
Networks, Systems, and Security Lab *University of British Columbia*

This is ongoing. I'll summarize my TAing and RAing experience here at some point. Please see my homepage "Activities" section for up-to-date information.

Research Assistant September 2008 - August 2010
Embedded Computing Lab *Konkuk University*

I developed a resource scheduling algorithm for the Real-time Operating System (Embedded Configurable OS) kernel, which was used at the *Unmanned Aerial Vehicle Software* project (supported by the Ministry of Knowledge Economy, Korea). This work later became part of my Masters thesis, which also became a conference paper and extended to a journal paper.

Research Assistant March 2008 - May 2008
Department of Applied Mathematics and Informatics *Moscow State University, Tashkent branch*

I designed and implemented secure document exchange system (web interface included) using custom cryptographic algorithm (Private Box Algorithm). This work became part of my undergraduate thesis.

Research Assistant January 2007 - February 2008
Department of Information Technologies *Tashkent University of Information Technologies*

As a senior undergraduate student, I have conducted research and development on design and implementation of a new data encryption/decryption algorithm (Private Box Algorithm) in Java. I also deployed various security tools to department LAN, including public/private key infrastructure, and firewalls.

PRESENTATIONS

VNF Chain Allocation and Management at Data Center Scale
August 22, 2018 at **UWaterloo**; July 25, 2018 at **CMU**; July 23, 2018 at **ANCS'18**.

AWARDS & HONOURS

Four Year Doctoral Fellowship September 2014 - present
for International PhD students *by University of British Columbia, Canada*

This award guarantees a financial support of at least C$26,000 per year plus tuition for the first four years of my PhD studies.

Korean Government IT Scholarship Program September 2008 - August 2010
for International Graduate Students *by Institute for Information Technology Advancement, Korea*

This award provided a fully-funded master degree education at Konkuk University (US$32K per year).

Outstanding student-researcher November 2007 - June 2008
in Science & Technology *by Ministry of Higher & Secondary Education, Uzbekistan*

The most prestigious merit-based national science scholarship named after *Biruni*. Award provides a fully-funded, unconditional graduate admission at any postgraduate university of Uzbekistan.

Runner-up for the Presidential Award November 2007
in Computer Science & Engineering *by Ministry of Higher & Secondary Education, Uzbekistan*

I was one of three finalists to compete for the Presidential Award for undergraduate students in Computer Science and Engineering descipline. Only one student is awarded each year.

Merit-based study scholarship September 2004 - June 2008
based on national entrance examination *by Uzbekistan government*

A fully-funded bachelors degree education in Tashkent University of Information Technologies.

COLLABORATION & SERVICE

I had an opportunity to work with these amazing students: Lise Savard, Omar Sabry, Alex Crooks, Vincent Hui.

I also subreviewed paper(s) for following conferences: ISSRE'17 and ICDCS'18.

PUBLICATIONS

See the homepage URL on top of the CV.