Personal information

Surname(s) / First name(s)	**Shafeev, Roman**
Address(es)	18/2 f.345 European avenue, Kudrovo, Leningrad region, Russia
Telephone(s)	Skype ID: roma.shafeev Mobile: +7 965 078 43 30
Email(s)	r.a.shafeev@yandex.com
Nationality(-ies)	Russian
Date of birth	Feb 14 1990
Gender	male

Work experience

Date	March 2018 –July 2019
Occupation or position held	Product Lead (Connected Vehicle Cloud), ARRIVAL LTD
Date	June 2017 – March 2018
Occupation or position held	Product Lead (Insurance Telematics), StarLine

Date	**July 2015 – June 2017 , 2 years**
Company	**StarLine**
Position Held	**C++/Python Backend Developer**
Roles	• C++ Backend Developing • Python API Backend Developing • Technical Design • Applied Mathematics Research
Key Achievements	• designed and implemented MSA with Decomposition way for Telemetry Monoliths Server using RabbitMQ as Services Messages Bus. • designed and implemented remote communication between client applications(mobile apps, web portal) and connected vehicles through $client \leftrightarrow api \leftrightarrow platform \leftrightarrow vehicle$ on Connected Vehicle Platform side using redis pub/sub channels. • developed backend micro-services with horizontal scaling to receive and to collect vehicle‘s telemetry of more than 300K connected vehicles. • implemented ’insurance-telematics’ feature to calculate insurance score based on raw data of vehicle accelerometer which collected from the vehicle on cloud side. • designed and implemented heuristic algorithm to solve ’anti-star’ problem to filter noise and broken track points in real-time.
Technical Skills	• Connected Vehicle Development: c++11, cmake, poco, stl, libevent, protobuf • API Development: python3, tornado, sqlalchemy • Services Communication Bus: rabbitmq (via SimpleAmqpClient for c++ / via pika for python) • Databases: redis (via hiredis), mysql (via mysqlcppconn), oracle (via occi)

Date	**September 2013 – June 2015 , 1 year 10 months**
Company	**NTU "KhPI", Ukraine**
Position Held	**Researcher of the Department of Computer Mathematics and Mathematical Modeling**
Roles	• Applied Mathematics Research • Conducting laboratory and practical classes of C++ programming
Key Achievements	• designed and implemented matlab application which allows to find the best productive supply for each transformer with minimal losses on the power transformers in Dushanbe (Tajikistan). • developed a vehicle routing java framework that uses specialized metaheuristic algorithms to calculate an optimal solution of the different classes of the static and dynamic vehicle routing problems.
Technical Skills	• Language: C++, Java • Math Tools: Matlab

Date	**July 2011 – November 2011 , 5 months**
Company	**Hamburg University of Technology-TUHH**
Position Held	**Software Developer**
Roles	• Applied Mathematics Research • Conducting laboratory and practical classes of C++ programming
Key Achievements	• built model which follows a rigorous development process framework, where model validity is ensured by using Supply Chain Operations Reference as theoretical process framework using Anylogic Modeling Platform. An agent based simulation platform is presented for generic supply chain modeling adding flexibility and configurability over existing models. • developed UI-tool which allows to design delivery routes between the points of the delivery chains and export them in .accdb format to have the ability to use them in Anylogic into supply chain model.
Technical Skills	• Modeling Tools: Anylogic 6.6 • Development: C++, WinAPI/MFC, Visual Studio 2008, OpenStreetMap

Personal skills and competences

Mother tongue(s) **Russian**

Other language(s) English

Self-assessment *European level*(*)	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	B1 Independent user	C1 Proficient user	B2 Independent user	B2 Independent user	B2 Independent user

(*) *Common European Framework of Reference (CEF) level*

Actual Technical skills and competences

• **Operating System Experiences**

Linux (debian, ubuntu, centos)

• **Programming Languages**

C++ 11+, Python 3, SQL, PL/pgSQL, Java / Scala(basic level)

• **Database Management Systems**

PostgreSQL, Oracle, Redis, InfluxDB, Cassandra, ClickHouse (basic level)

• **Python technologies & frameworks**

Tornado, aiohttp, sqlalchemy, WAMP

• **C++ technologies & frameworks**

cmake, STL, libevent, nghhtp2

• **Data Streaming & Services Bus**

RabbitMQ, Apache Kafka, Temporal.io

• **Orchestration & Containerization**

k8s, docker compose, docker swarm

• **Cloud Computing Services**

GCP k8s, Google Pub/Sub

• **Infra & CI tools**

Jenkins CI, Gitlab CI, Ansible, Terraform

• **Development tools**

PyCharm, CLion, Intellij Idea

• **Version Control Systems**

Git

• **Other skills**

Mathematics: MatLab, R Studio

Simulation: Rational Rose, Anylogic

SOURCE CODE

Source code, demonstration video and documentation of my projects:

`https://github.com/rshafeev`

Education and training

Place and Date	National Technical University "Kharkov Polytechnic Institute", Ukraine, 2013 – 2016
Specialty	Mathematical modeling and computational methods
Title of qualification awarded	passed PhD minimum, successful completion of postgraduate study
Thesis theme	Development of mathematical models and methods to solve the Dynamic Vehicle Routing Problem with uncertain input parameters
Place and Date	National Technical University "Kharkov Polytechnic Institute", Ukraine Computer Mathematics and Mathematical Modeling department, 2011 – 2013
Title of qualification awarded	Master‘s degree in Applied Mathematics with excellence
Place and Date	National Technical University "Kharkov Polytechnic Institute", Ukraine Computer Mathematics and Mathematical Modeling department, 2007 – 2011
Title of qualification awarded	Bachelor‘s degree in Applied Mathematics with excellence
Principal subjects covered	Mathematical Analysis Discrete Mathematics Programming (C,C++) Probability Theory and Mathematical Statistics Object Oriented Programming Numerical Methods Optimization Methods Logical Algorithms and Artificial Intelligence Systems Control Theory Development of Information Systems (Java, IDEF, Web 2.0) Computer Simulation Distributed Information Systems(Oracle) Actuarial Mathematics

PUBLICATIONS

- R. Shafeev. Investigation of tuning parameters of Tabu Search algorithm and its modification for solving the static Routing Courier Delivery Problem. Kharkov NTU "KhPI" , 2016, 18 p.
- Lyubchyk L.M., Kolbasin V.A., Shafeev R.A. Nonlinear Signal Reconstruction based on Recursive Moving Window Kernel Method. / IDAACS, Warsaw, Poland, 2015, 6 p.
- R. Shafeev. A new metaheuristic algorithm for Solving the Transportation Problem with Time Constraints / L. Lyubchik // Vestnik NTU "KhPI". – Kharkov: NTU "KhPI", 2013. – No3 (977). – p. 35–39.
- Shafeev R.A. A Development of SaaS service to solve dynamic vehicle routing problem / System analysis and information technologies: SAIT, Kyiv, 2013.
- R. Shafeev. Relationship between the Vehicle Routing Problem with Time Windows and the Assignment Problem. // Theoretical and Applied Aspects of Cybernetics. – Kiev: Bukrek, 2012. – p.145–149.

SCIENTIFIC WORK

- May 2013, I presented the research work, devoted of development of client-server information system for solving the Dynamic Vehicle Routing Problem at the XV International Conference on Science and Technology "System Analysis and Information Technologies" at the National Technical University “KPI”, Kiev, Ukraine.
- March 2012, The winner (1‘st place) of the all-Ukrainian competition of the research student works, section "Informatics and Cybernetics", Vinnytsia, Ukraine.
- September 2011, participant of the International Conference of Logistics at the Hamburg University of Technology, Hamburg, Germany.
- October 2010, I presented the research work, devoted to effects of electromagnetic fields on the complex biological objects at the Vth International conference “Environmental aspects of the technological security of the regions“ at the National Automobile and Road University, Kharkov, Ukraine.
- May 2010, I presented the research work, devoted to numerical simulation of the motion of celestial bodies at the XII International Conference on Science and Technology “System Analysis and Information Technologies“ at the National Technical University "KPI", Kiev, Ukraine.
- May 2007, The winner (2nd place) of the third stage of the all-Ukrainian competition of research carried out by the students-members of the Ukrainian Small Academy of Sciences, section "Computer networks, databases and data banks", Kiev, Ukraine.
- December 2006, The winner (1nd place) of the second stage of the all-Ukrainian competition of research carried out by the students-members of the Ukrainian Small Academy of Sciences, section "Computer networks, databases and data banks", Zaporozhye, Ukraine.

Additional information

GRANTS

Grant of Government of Ukraine, 2010–2011.

Grant of the “DAAD-East European Partnership Exchange” funding framework between “National Technical University” (Kharkov, Ukraine) and “Hamburg University of Technology-TUHH” (Germany). During the internship, I worked as a team member, which developed Supply Chain Management project, Hamburg (Germany), July – October 2011.