

Izzat Mukhanov

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Location: Paris, France

Work Experience

- Software Development Engineer & Tech Lead** 2016 – now
Prime Air: Autonomous 30 min delivery system by drones
Successfully designed, implemented and delivered (used in production):
 - Highly scalable vehicle simulator that supports time accelerations.
 - Vehicle-agnostic autonomous path planning system.**Significant contributions:**
 - Designed and led the implementation of integration tests of multiple teams' services.
 - Simplified various flows/architecture/implementations across Prime Air organization.
 - Deployment, maintenance and improvement of multiple AWS web services.
 - Operational excellence: metric reporting, package management system, etc.
 - Terrain client (to query terrain information for a geographical area) library.Company: [Amazon](#)
- Engineer**, developer (C, C++, Python, JavaScript) 2014 – 2016
Improvement and development of a cross-platform library [libpointing](#)
which allows direct access to the USB-HID pointing devices
and can apply different transfer functions to the raw input
Creation of *Java*, *Python*, *Node.js* bindings and distribution with *npm*, *apt*, *brew*, etc.
Company: [INRIA](#)
- Master's Project** (C++, Python, MATLAB) 2014 (6 months)
Implementation of Pedestrian Detection and Tracking system [\[thesis\]](#) [\[video\]](#)
using Computer Vision and Machine Learning algorithms
Laboratory: [IRCCyN](#)
- Intern** (Python) 2013 (4 months)
Development of [OpenSymoro+](#) (SYmbolic MOdeling of RObots),
including 3D visualization and UI using *PyOpenGL* and *wxPython*
Laboratory: [IRCCyN](#)
- Software developer** (Objective-C) 2011 – 2012
Development of client-server applications for iOS and Cocos2D games
Company: [SSD](#)
- Intern**, software developer (C/C++) 2010 – 2011
Low-level API development for Blu-ray disks processing
Implementation of the logging system for the project
Company: [ProDVD](#)
- Intern**, software developer, instructor (C#.NET) 2009 – 2010
Application development for book catalogization of the city libraries
Database management (Microsoft SQL)
Company: [BePro](#)

Education

- [M.S. in Robotics, Control Engineering, Applied Informatics](#) 2012 – 2014
École Centrale de Nantes
- B.S. in Telecommunications 2007 – 2011
[Tashkent University of Information Technologies](#)

Professional Skills

- Knowledgeable:
 - **Java, Python, C++**
 - Multi-threaded, real-time applications
 - AWS infrastructure
 - Design Patterns, Test Driven Development, Continuous Integration/Deployment
 - Familiar:
 - Kafka, Websockets, Netty, Protobuf
 - JavaScript, Node.js, Three.js
 - MATLAB, Objective-C, Pharo, C#.NET, PHP, SQL
 - OpenGL, OpenCV
 - ROS (Robot Operating System)
 - Theoretical background:
 - Path planning algorithms
 - Math, Optimization, Simulation
 - Computer Vision, Machine Learning, Artificial Intelligence
 - Robot Programming, Modeling and Control
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Miscellaneous

- Driven by high-quality results, simplicity and usage of appropriate abstraction layers.
- Highly adaptable in quickly changing technical environments with very strong organizational and analytical skills
- Excellent interpersonal and communications skills
- Life-long learning oriented
- Driver's license
- Publication: [OpenSYMORO : An open-source software package for Symbolic Modelling of Robots](#), 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (355)

Languages

- English - fluent
- French - fluent
- Russian - native
- Uzbek - native

Hobbies

- Following online courses (MOOCs)
- Gym and cycling
- Reading