Yernur **Nursultanov**

· Software System Engineer ·
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"We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard"
John F. Kennedy

Education

SFU(Simon Fraser University) — *Burnaby, Canada*
B.S. in Software System — *Sep. 2014 - Dec. 2018*
Relevant Coursework: Algorithms, Compilers, Data Analysis, Data Structures, Embedded Systems, Linear Algebra, Machine Learning, Multimedia, Probability Theory, Web Information System

Skills

Tools & Platforms Bash, Cmake, Docker, Git/SVN, Jira, Review Board
Software Analysis AFL-Fuzz, GDB, GoogleTest/Mock++, jUnit
Cloud Computing AWS
Programming Langs C/C++, Java, JavaScript, Python
Database MySQL, NoSQL, PostgresSQL, SQLite
Web Django, HTML5, Node, JS, SCSS

Experience

VDF Vertical — *Toronto, Canada*
Research Developer [Remote] — *Sep. 2017 - Dec. 2017*
- Designed and built a retrofit elevator hoistway sensor kit that runs on an open-source single-board computer, BeagleBone Green
- Worked directly with hardware vendors to integrate their modules with existing machines which significantly reduced the projected cost of the product
- Implemented POSIX-compliant sensor libraries in C/C++ for ARM architecture that increased readability and reusability of code
- Maintained test plans of team-owned components with unit and system test scripts on a Jasmine for Node.js web-server
- Configured GitLab Continues Integration for detecting build errors and cut down overall integration time
- Constructed a wood frame prototype for testing purposes and demo session

BlackBerry QNX — *Ottawa, Canada*
Camera Research — *Jan. 2017 - Apr. 2017*
- Contributed software engineering expertise in the development of the new product features through the software lifecycle
- Improved support for IP/GigE Vision camera services for ADAS 2.0 sensor fusion framework
- Resolved low/medium/high priority tickets in robust and POSIX compatible C/C++
- Optimized buffer management for image post-processing by adding synchronization of timestamps directly from cameras' drivers and eliminating the necessity of memcpying
- Implemented the real-time Max-Point ratio configuration option that allows dynamic frequency tuning of LiDAR data
- Automated testing and environment setting with bash scripts to reduce examination time and testing overhead

Latest Projects

CHOMP
Self Project — *Jun. 2019 - Dec. 2019*
- Designed and built a website that allows users to both monitor their weight, and to improve themselves for the future
- Developed a nutritional tracking and meal planning application using Django FW and Bootstrap's CSS
- Implemented budgeting feature for meal planning and eating out
- Designed and implemented database architecture for product nutrients in PostgreSQL

Lossy & Lossless compressor
Self Project — *Jan. 2019 - Sep. 2019*
- Applied Huffman and LZW algorithms for lossless compression of data as well as a JPEG algorithm for lossy compression in Java
- Implemented GUI UI to observe compression ratios in Java swingX framework
- Future Direction: Implementation of picture mosaic & switching to Python Kivy FW