TIM NOSOV

ENGINEER/SOFTWARE DEVELOPER

PROFILE

Name
Tim Nosov

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SKILLS

Software
Python, C/C++, design patterns,
version control, testing,
deployment, integration, devops

Data Science
machine learning, numerical
analysis, statistics

Robotics
autonomous navigation,
control theory, kinematics

Electronics and embedded
firmware development, circuit design,
PCB design, power electronics

Web Dev
AWS, SQL, MVC, flask, Rails

SOCIAL

linkedin.com/in/timnosov

github.com/timateus

WORK EXPERIENCE

2016

UrtheCast   Vancouver, BC
Systems Engineer, Co-op
In this role I developed a satellite scheduling system. The system
will be implemented on satellites for autonomous scheduling
- Analyzed and implemented optimization and scheduling algorithms
- Communicated pros and cons of various optimization
  algorithms to technical and non-technical audience
- Gathered and reviewed requirements for the system
- Analyzed hardware selection
- Analyzed memory and time utilization by various algorithms

2015-2016

UrtheCast   Vancouver, BC
Software Engineer, Co-op
In this role I developed algorithms and software to process
satellite imagery. This position was an exciting combination of
software engineering, algorithm development and devops.
- Designed and implementated complex software systems
- Implemented image processing algorithms: quality
  assessment, geometric and radiometric correction
- Worked with mapping and GIS tools

2016-Current

LOCUS   Vancouver, BC
Data Scientist, Co-founder
For this project my team and I implemented a localization system
to track shopping carts inside grocery stores. The project involved
problem definition, hardware selection, algorithm and software design,
as well as implementation in a large Vancouver supermarket.
- Designed a data science application for indoor
  localization using Bluetooth (Python, sklearn, numpy
  and Bluetooth transmitters and receivers)
- Analyzed classification algorithms for bluetooth fingerprinting
- Analyzed state estimation techniques such as
  Kalman, Bayesian and particle filters
- Implemented a web application for data ingestion,
  processing and delivery (Python, Flask, AWS, mySQL)

2015

NETGEAR   Vancouver, BC
Hardware Engineer, Co-op
In this role I automated hardware testing and performed manual
testing of low-level electronics for Wi-FI and LTE devices.
- Automated battery testing procedures
- Analyzed PCB design for signal integrity issues
- Wrote extensive testing documentation

WORK EXPERIENCE (CONTINUED)

2013 **Cloudy Robotics**   Vancouver, BC
Robotics Engineer, Co-founder
For this project I developed hardware and firmware for mobile teleoperated robots
- Integrated multiple sensors such as cameras, ultrasonic range finders, photodiodes
- Implemented simple collision avoidance algorithms
- Analyzed and chose robot chassis, microcontrollers, batteries, on-board computers, motor drivers, communication modules and sensors

2014 **Experimental Robotics Lab at Simon Fraser University**   Vancouver, BC
Computer Vision, Co-op
In this role I developed a computer vision system to track position and orientation of mobile robots.
- Feature extraction using conours
- Feature analysis using Hu invarient moments
- Feature classification using the k-NN algorithm

EDUCATION

2011 - **Simon Fraser University**   Vancouver, BC
2017 Mechatronics Systems Engineering Major, 3.35/4.33 Upper Division GPA
- Robot Control
- Engineering Optimization
- Modern Control Theory
- Numerical Analysis

2012 - **Coursera.org, EdX.org, Udacity.com**   Online
present Machine Learning (Dr. Andrew Ng, Stanford University on Coursera.org)
Artificial Intelligence for Robotics (Dr. Sebastian Thrun, Georgia Tech on Udacity.com)
Startup Engineering (Stanford University on EdX.org)

PROJECTS

2016 - **SFU Satellite Design Club**   Vancouver, BC
present *Founder/President*
Founded a student club to design, build and launch a satellite. I worked on mission analysis and design, architecture definition and project management.

AWARDS

SFU Dean's Honour Roll, 2017 (outstanding academic performance)
Winner of the Simon Fraser University Engineering Competition 2013, 2014, 2015
Participant of the Western Engineering Competition 2013, 2014, 2015