Alexander Kuznetsov

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EDUCATION

QUEENS UNIVERSITY
BASc Engineering Physics, Computing Option
Expected Apr 2018 | Kingston, ON
Cum. GPA: 3.97
Dean's List (All Semesters)
Principal's Scholarship
Toronto-Dominion Bank Higher Education Award
Herman K. Walter Award
Camelford & White Memorial Entrance Award
Maurice G.Corbett Entrance Bursary In Applied Science
Queen's Admission Award

WEST CARLETON H.S.
Grad. June 2014 | Ottawa, ON
Silver Medal Winner (90%+ average)
Grade 11 Academic Excellence Award (highest average)
University of Toronto National Book Award

UNDERGRADUATE
Software Algorithms and Development
Machine Vision and Image Processing
Computer Graphics
Computational Engineering Physics
Digital Systems
Electronics
Engineering Practice
Advanced Mechanics
Advanced Mathematics
Classical and Modern Physics
Labaratory Physics

SKILLS

PROGRAMMING
C/C++ • C# • Java •
.Net • JavaScript • Matlab
HTML • CSS • Python •LabView

ENGINEERING
Stakeholder analysis • Teamwork
Idea Generation • Idea Evaluation
Time-management • Planning

ABOUT ME

I am a sociable, motivated, and intelligent Engineering Physics student seeking adventure, thirsty for new experiences and aiming to utilize my maximum skill and potential. I have interests and experience in computer engineering, applied physics, and robotics. I thrive in high-stress environments, always accomplishing great things.

EXPERIENCE

CIENA | Embedded Software Designer Co-op
May 2017 – Sep 2017 | Ottawa, ON
- Designed and implemented control layer device drivers for optical equipment
- Wrote regression testing software of optical equipment (monitoring hardware pin behavior, testing optical gain, etc)
- Extensive use of low-level C and VxWorks RTOS

CIENA | Software Engineer Co-op
May 2016 – Sep 2016 | Ottawa, ON
- Reverse engineered a routing table and wrote parsing software to build a list of optical services through the United States
- Analyzed performance of smart algorithms in covering optical services
- Expanded telecommunications equipment APIs used in planning software
- Worked with C, C#, .Net, Visual Basic, Matlab, agile development methodology and git

CONNECTIV8 CORP. | IT Team Executive
May 2013 – Present | Kingston, ON
- Student-run startup aiming to solve issues with the education system by connecting students with businesses to work on projects
- IT/Web Development Team: HTML/CSS, Javascript, C#, AngularJS

PROJECTS

AUTONOMOUS ROBOT FOR SNO+ EXPERIMENT
Sep 2017 - | Kingston, ON
Designing an autonomous robot for Nobel winning SNOLab. Position is triangulated with cameras and combined with other sensor measurements for state estimation.

OPTICAL I-V TRACER
Jan 2017 -April 2017 | Kingston, ON
Designed and implemented the mechanical, electrical, and software aspects of an optical I-V tracer to evaluate the performance of a photodiode.

BUYBOT: KINGSTON CITY HACKS FINALIST
Nov 2016 | Kingston, ON
Using a machine learning API, natural language processing, and Google's search API, created a Telegram bot that returns an Amazon page from a picture of a product.

C++ MAZE SIMULATION GAME
Sep 2016 – Dec 2016 | Kingston, ON
As part of an agile software development team, created a game in C++ that randomly generates mazes and allows the player to race against an AI that calculates the shortest path using the A* algorithm.

COMPACT ENVIRONMENTAL SENSOR
Sep 2015 – Dec 2015 | Kingston, ON
In light of the recent Volkswagen emissions scandal, designed, constructed and coded a system utilizing sensors and an Arduino to monitor tailpipe emissions of vehicles.