Anna Novoseltseva

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RESEARCH EXPERIENCE

JAN 2017 - AUG 2018

Worcester Polytechnic Institute, Worcester, MA, USA
Master's thesis

Designed, prototyped, and and tested a three-axis force measurement device for the da Vinci surgical system to provide haptic feedback to the operator based on forces applied to the instruments. Designed electronics and analog control circuits. Developed a ROS package to interface with the da Vinci Research Kit.

AUG 2014 – DEC 2016

Tomsk Polytechnic University, Tomsk, Russian Federation
Bachelor's thesis

Designed and developed electronic circuits of a device for determining the location of hematomas using infrared spectroscopy. Programmed microcontroller STM32 in C for device control. Created a program for data analysis and acquisition using LabVIEW. Implemented RS232 serial communications between PC and developed device.

PROFESSIONAL EXPERIENCE

CURRENT, FROM SEPT 2018 (FT)

NTO IRE Polus
Engineer

Designed and implemented the full-scale manufacturing process for a new medical laser treatment product. Responsible for component quality assurance, inventory database development, and design of assembly line process equipment.

SUMMER 2017, 2018 (FT)

IPG Medical
Internship

Research, development, and testing of new medical laser systems for dermatology. Conducted laser-tissue interaction experiments with biological tissue samples and phantoms.

SUMMER 2014 (PT)

Medtekhnika, Ulan-Ude, Russian Federation
Internship

Assisted in technical support and repair of medical equipment in hospitals and clinics.

REFERENCES

Dr. Gregory S. Fischer

POSITION Professor
EMPLOYER Department of Mechanical Engineering
Worcester Polytechnic Institute

EDUCATION

2016-2018 **Master of Science**
GPA: 3.9/4.0
Biomedical Engineering
Worcester Polytechnic Institute

2011 – 2015 **Bachelor of Science**
GPA: 4.8/5.0
Biotechnical Systems and Technologies
Tomsk Polytechnic University

AWARDS

2016 **Fulbright Scholarship**
Worcester Polytechnic Institute

2015 **1st Place Team, All-Russian Student Competition on E**
Tomsk Polytechnic University

COMPUTER SKILLS

BEGINNER Java, MS DOS

INTERMEDIATE Javascript, Python, HTML, CSS, Microsoft Windows Computer Hardware & Support

EXPERT Perl, Unix, LaTeX

COMMUNICATION SKILLS

CONFERENCES Oral Presentation at the Annual MIT Theoretical Physics Conference – 1987

POSTERS Poster at the Meeting of the American Physical Society – 1985

SKILLS

Goal Oriented

I believe in action over long-winded discussions. I listen to everyone's viewpoints and use my judgement to immediately act based on consensus to achieve goals quickly and efficiently.

Physical Dexterity

Manual manipulation of experimental equipment and training within Black Mesa (e.g. the Hazard Course) have contributed to an enjoyment of working with my hands.

Passionate

I have been interested in theoretical physics such as quantum mechanics and relativity from an early age. My education and research have cemented this interest into a passion. I greatly enjoy carrying out fundamental physics research with potential practical applications.

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Dr. Ilya Yaroslavsky

POSITION Manager of Advanced Product Development
EMPLOYER IPG Medical

EMAIL iyaroslavsky@ipgphotonics.com
PHONE +1 (508) 373-1100 (Work)

PUBLICATIONS

Freeman, G. R. (1996). Chemistry of Multiply Charged Negative Molecular Ions and Clusters in the Gas Phase: Terrestrial and in Intense Galactic Magnetic Fields. *The Journal of Physical Chemistry*, *100*(11), 4331-4338.

Jacobsen, F. M., Gee, N., **Freeman, G. R.** (1986). Electron mobility in liquid krypton as function of density, temperature, and electric field strength. *Physical Review A*, *34*(3): 2329-2335.

1996 **doi:10.1021/jp951483+**
1990 **doi:10.1139/p90-097**
1986 doi:10.1139/v86-297
1986 doi:10.1103/PhysRevA.34.2329

First author publications in **bold**