Ivan Mikhaylov

Objective Research &Development Scientist in physics, optics, engineering, and programming. Desire a position that utilizes my manual dexterity and independent thought.

Professional Highlights

Scientific Research

- Made 40+publications in peer-reviewed journals& 9 presentations at international conferences.
- Developed analytical & numerical modelsfor particle-molecule interactions and encoded them.
- Accomplished sophisticated quantum mechanical calculations.
- Collected and processed data at cyclotron and optical experiments.
- Received 2 awards for best works of the Petersburg Nuclear Physics Institute in 2002 & 2004.

Engineering

- Designed and assembled robots based on Arduino boards, servo-motors, and various sensors.
- Invented the following models for the synthetic human body: eye with an active pupil, beating heart, breathing lung, blinking eyelids, inflatable sealing lock.
- Automated a Z-scan optical experiment using a step-motor.

Leadership & Training

- Led a group of Organic Chemistry, presided at weekly group meetings, and reported progress.
- Supervised 5 graduate students in their PhD research projects.
- Held College Physics seminars for 25 studentsonce a week for one semester.
- Delivered lectures on quantum mechanics when Professor was not present.

Software development

- A code for Monte-Carlo kinetic simulation of nuclear fusion reactions and its user guide.
- An add-on for molecular dynamics simulations to quantum chemistry packages.
- A parallel code for High Performance Computer to simulate electron-molecule interactions.
- Codes for robotics andcomputer-controlled experiment automation.

Skills

- Analytical & numerical computing
- Strong knowledge of FORTRAN 77, 90, C/C++, MatLab, W Mathematica.
- HPC programming&Linux scripting.
- Strong attention to detail.
- Good project management skills.

- Electronics engineering (microcontroller use, soldering, assembling, debugging, repairing).
- Machine learning.
- Advanced optical lab skills.
- Advanced auto mechanic skills.
- Expertise in MS Office and LaTex.

Employment History

Engineer Assistant	SynDaver Labs, Tampa, FL	2014 – 2015
Research Associate	NanoScience Technology Center, Orlando, FL	2012 – 2014
Research Associate	University of South Dakota, Vermillion, SD	2011 – 2012
Postdoctoral Fellow	University of Central Florida, Orlando, FL	2005 – 2011

Education PhD in physics   Nuclear Physics Institute, St. Petersburg, Russia.

Citizenship US Resident (Green card holder) as a scientist of exceptional abilities.