

Shirinov Alexander

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QUALIFICATIONS

- Highly motivated and result-oriented professional with demonstrated ability to develop and to implement complex micro-mechanic, robotic, haptic, pneumatic and hydraulic systems and control software
- Detail-oriented team player with good scientific judgment and excellent troubleshooting skills
- Strong computer skills: Windows (95, 98, 2000, NT, XP), MS-DOS, real time, Microsoft Office, CorelDraw, Adobe Photoshop, Target 3001 (PCB design), EAGLE (PCB design), Pro-Engineer (CAD), Programming in C/C++, LabView, DIADEM, Pascal, Basic, HTML.
- Ability to learn new computer programs and applications quickly, with little instruction.
- Strong mechatronics skills: development of mechanical components, kinematics of mechatronics systems, development, testing and repair of analog, digital and microcontroller-based electronic circuits, development of embedded and Windows-based applications.
- Experience in microsystem technology: SEM, light microscopes, ultrasound welding, micro-, nano- manipulators
- Languages: English, Russian, German

PROFESSIONAL EXPERIENCE

- 5/2004-Present Research Assistant *Aachen University of Technology (RWTH), Institute of Construction and Development of Microsystems (KEMIKRO)*, Aachen, Germany
Achievements: Developed a new kind of micro pressure sensors from piezoelectric polymers for the measurement of static and dynamic pressures in liquids and gases.
- 11/2001-4/2004 Research Associate *Oldenburg University, Institute of Microrobotics and Control Engineering*, Oldenburg, Germany
Achievements: Development of the HIMiC haptic interface for the teleoperation of microrobots with force feedback in the nanohandling station. This haptic interface was presented at the International Exhibition Hannover Messe 2003 in Hannover, Germany, and at the International Exhibition EuroNanoForum 2003 in Trieste, Italy.
Development of software for the control of microrobots and SEM-based nanohandling station. Integration of microassembly system components. The developed microassembly station was presented at the International Exhibition Hannover Messe 2003.
- 6/1998-12/1999 Advisor - Biomedical Engineer *Open Society Institute – Azerbaijan*, Baku, Azerbaijan
Installed, tested and repaired medical equipment. Taught technical staff in clinics how to test and maintain the medical equipment.
- 9/1997-6/2001 Biomedical Engineer *BIOMED firm, Biomedical Technical Systems firm*, Baku, Azerbaijan
Installed, tested and repaired medical equipment for laboratory diagnostics, surgery, cardiology.

EDUCATION

Aachen University of Technology (RWTH), Aachen, Germany

PhD in Mechanical Engineering, Expected April 2007

Azerbaijan State Oil Academy – University of Technology, Baku, Azerbaijan

Postgraduate Study in Information Engineering, Computing and Measuring Technique, (1/2000- 11/2001)

Azerbaijan State Oil Academy – University of Technology, Baku, Azerbaijan

Master of Science in Instrument Making with specialisation in Biomedical Apparatus and Systems, 1999

Diploma with honours (summa cum laude)

Azerbaijan State Oil Academy – University of Technology, Baku, Azerbaijan

Bachelor of Science in Instrument Making with specialisation in Biomedical Apparatus and Systems, 1997

Diploma with honours (summa cum laude)

Carelift International, Philadelphia, USA

Training in installation and maintenance of medical equipment shipped to clinics in Baku, July 1998

The second place at the Azerbaijan National Student Competition on Physics, Baku, 1994

2 publications in professional journals and 14 publications in proceedings of international scientific conferences