

Stan Alan Guthrie

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EDUCATION

Physics Ph.D. Program.

Yale University, 2003-present. Advisor: Mark A. Reed. (mark.reed@yale.edu)

Master of Science in Physics.

Yale University, December 2005.

Bachelor of Science in Physics, Minor in Mathematics, with Highest Honors.

Montana State University—Bozeman, MT, May 1999, GPA 3.94/4.00

Baccalaureate Honors Degree. Montana State University—Bozeman, MT, May 1999.

Non-Degree program in Russian language, history, and culture.

Saint Petersburg State Technical University, August 1997-May 1998.

RESEARCH INTERESTS

Low-dimensional systems. Semiconducting nanowires. Nanowire growth and characterization.

EMPLOYMENT

Yale University Department of Electrical Engineering, 5/2005-present.

- Design, fabrication, and operation of a hot-wall chemical vapor deposition system for growth of III-V semiconducting nanowires. Experience in a class 100 cleanroom.

Yale University Department of Physics, 7/2004-8/2004.

- Research in extrasolar neutrino detectors, high-speed single-photon detection.

Software Developer. Independant Consultant, 4/2001-present.

- Custom web site design, database design and administration.

Software Developer. RightNow Technologies, 10/1999-3/2001.

TEACHING EXPERIENCE

Physics Teaching Fellow. Yale University, 9/2003-present.

Adjunct Professor. Bay Path College, 1/2005-4/2005.

Substitute Teacher. Anglo-American School of Moscow. 1/2002-5/2003.

English Instructor. Griboedov Inst. of International Law and Economics, 9/2001-5/2003.

Private English Instructor. Independent Tutor, Bozeman, MT, Moscow, Russia. 1/1997-5/2003.

Physics Laboratory Instructor. Montana State University—Bozeman. 1997-1999.

Teaching Fellow. Montana State University Honors Department, 8/1995-12/1995.

OTHER EXPERIENCE

Russian Translator. Grace Bible Church, synchronous oral, written. 6/1998-5/2000.

ISI Associate. International Students, Inc. 6/1998-8/2000.

Wartime Relief Worker. Fier, Albania. 5/1999-6/1999.

- Worked with *Komuniteti Ungjillor* and *Rruga e paqes*. Managed Kosovan and Albanian volunteers.

Master Craftsman and Company Founder. Kithara, Bozeman, MT. 1994-1999.

- Founded Kithara. Designed, manufactured, and marketed 36-string folk harps.

New Life Volunteer. Saint Petersburg State Technical University, Russia. 9/1997-5/1998.

Montana State Science Olympiad Event Supervisor. 1994, 1995.

Professional Opera Singer. Intermountain Opera Association. *Faust, Il barbiere di Siviglia, Il Trovatore*.

HONORS AND AWARDS

National Security Education Program Scholar; Robert C. Byrd Scholar; National Merit Scholar; Golden Key National Honor Society; Phi Kappa Phi Honor Society; Chamber of Commerce Award for Excellence; American Institute for Foreign Studies Merit Award; Presidential Scholar; President's List of Academic Achievement five times; Dean's List of Academic Achievement three times. Sigma Pi Sigma (physics honor society). Pi Mu Epsilon (mathematics honor society).

PROFESSIONAL ACTIVITIES

Society for Optical Engineering. Society of Physics Students.

SELECTED PUBLICATIONS

"Electrical Characterization of Single GaN Nanowires", *Nanotechnology* 16 (2005).

"Comparison of Laser-Ablation and Hot-Wall Chemical Vapor Deposition Techniques for Nanowire Fabrication" (submitted)