

Gurjot S. Sidhu

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Education	M.Sc. Physics, ETH Zurich, 2015 - 2017 B.Sc. Physics (Honours), Hansraj College, University of Delhi, 2012 - 2015 Std. XII, AISSCE (C.B.S.E.), DAV Public School, 1997 - 2012
Research Interests	Computational Physics - particularly Simulational Physics, Quantum Systems and Quantum Information Theory
Research Experience	<div><div>Research InternJune 2015 - Aug 2015</div><div>Okinawa Institute of Science and Technology, Japan Studied the vortex dynamics of a Bose-Einstein condensate trapped in a harmonic potential particularly for phase windings larger than unity <u>Skills acquired:</u> Simulating Quantum Systems using MATLAB, Working on a cluster</div></div> <div><div>Research AssistantNov 2013 - to date</div><div>Hansraj College, University of Delhi Studying the real life applications of differential equations and understanding their physical and geometrical aspects, using physical experiments and computer simulations <u>Skills acquired:</u> Simulations (2D and 3D), Scientific programming in Python</div></div> <div><div>Summer Research InternJun 2013 - Jul 2013</div><div>Department of Physics and Astrophysics, University of Delhi Studied the change in physical, chemical and ferromagnetic properties of Barium-Titanate thin films when doped with transition metal elements <u>Skills acquired:</u> Preparing thin films using chemical methods</div></div>
Computer Skills	Languages Python, MATLAB, C++, HTML, CSS, LaTeX Projects Simulations Interactive 3D simulations of Simple Harmonic Oscillators Stock market simulation with fixed volatility rate Game Design Implemented a version of Pong and a 2x2x2 Rubik's Cube solver Applet Design Wrote a Linear Algebra module in Python Built a RSS feed reader cum text readability helper applet Graphics Design Designed desktop wallpapers and posters; submissions on deviantart.com have over 40,000 individual page views and 20,000 downloads
Achievements and Honors	High School Valedictorian Academic Merit Award, Std. XII, DAV Public School

Merit Certificate, CBSE - (scored 100% in Mathematics, AISSCE)
Laureate Certificate, DAVCMC - (scored 100% in Mathematics, AISSCE)
86th percentile globally in Google Code Jam 2014
Semi-finalist (Parliamentary Debate) at Shri Ram Debating Festival 2015
Gold Medal (State Rank 1), International Olympiad of English Language
Best Actor, One Act Play Festival, Takshila Education Society
Gold Medal, Mahatama Hansraj Sports Tournament (Basketball)
Silver Medal, District Level School Games (Basketball)

Hansraj Dramatics Society

Aug 2012 -
to date

Coordinator, Technical Head

Been a part of four productions - won numerous competitions at the inter-university level; co-directed a street play

In-charge of all PR and technical activities

LUMEN - Physics and Electronics Society

Aug 2013 -
to date

Academic Coordinator, General Secretary

Set up the Schrodinger's Club - Weekly Journal Club of the Department of Physics, Hansraj College

Organised debates, quizzes, seminars and offered general guidance to juniors

Quora.com

Nov 2012 -
to date

Quora is a Q&A based social network

Content generated (answers, questions, blogs) till date has over 1.25 million views with a monthly outreach of over 20,000 unique views

**Work
Experience**

Freelance

Interned with Hindustan Times Education

Wrote pop science and technology reviews for a website

Helped design the curriculum for an ESL course

Hobbies

Theatre, Reading, Football, Basketball, Amateur Software Development