## Gurjot S. Sidhu

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D - 171, First Floor Sector 41, NOIDA 201303, India

Education

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 and Econophysics, Quantum Information and Computation

Research Experience Research Intern

Okinawa Institute of Science and Technology, Japan

Will be working on characterizing chaotic dynamics for a four mode

Bose-Einstein condensate in a double well

Research Assistant

Nov 2013 -

to date

June 2015 -

Aug 2015

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

Skills acquired: Simulations (2D and 3D), Scientific programming in Python

Summer Research Intern

Jun 2013 -

Department of Physics and Astrophysics, University of Delhi Jul 2013 Studied the change in physical, chemical and ferromagnetic properties of Barium-Titanate thin films when doped with transition metal elements

Skills acquired: Preparing thin films using chemical methods

Computer Skills

Languages

Python, C++, MATLAB, 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

Gold Medal (State Rank 1), International Olympiad of English Language Bronze medal (State Rank 3), Avantika Talent Search Essay Competition Best Actor, One Act Play Festival, Takshila Education Society Gold Medal, Mahatama Hansraj Sports Tournament (Basketball) Silver Medal, District Level School Games (Basketball)

## Societies Hansraj Dramatics Society

Aug 2012 -

Coordinator, Technical Head

to date

Been a part of three productions - won numerous competitions at the inter-university level

In-charge of all PR and technical activities

## **LUMEN - Physics and Electronics Society**

Aug 2013 -

Academic Coordinator, General Secretary

to date

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

Work Freelance

**Experience** 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