

ANAND PRIYADARSHEE, PhD

OBJECTIVE: To obtain a challenging position as a Quantitative Analyst/Researcher in Finance.

QUALIFICATIONS AND SKILLS

- Quantitative**
- Extensive research experience in computational condensed matter physics.
 - Large-scale computation and modeling techniques. Used Path-Integral Monte Carlo methods with optimized Markov process extensively.
 - Proficient in statistical analysis, probability theory, stochastic process, differential calculus and non-linear optimizations.
 - Performed research at the interface of physics, mathematics and engineering during bachelor and doctoral programs.
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- Financial**
- Market Derivatives, Fixed Income and Risk Management, Corporate Finance; attended at Fuqua School of Business.
 - Implemented algorithms for basic financial instrument pricing, VaR and Markowitz portfolio allocation in C++.
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- Computer**
- Strong programming skills in C/C++, Mathematica, Matlab and shell-scripts.
 - Experienced in data-analysis packages such as CERN-Root, SAS and S-Plus.
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- Others**
- Designed labs and graded courses for Duke undergraduates.
 - Taught arts-majors as well as 4th graders. Experienced in conveying technical ideas to non-technical people.
 - Currently working on design and strategy for an online assessment product.

EDUCATION

- Doctor of Philosophy Sept. 2006
Duke University, Durham, NC-USA, Department of Physics
Dissertation: *Quantum Critical Behavior of Hard Core Bosons*
- Bachelor of Technology 1999
Indian Institute of Technology, Bombay, India, Engineering Physics
Thesis: *Some Electronic Properties of Atoms in Confined Potentials*

ACCOMPLISHMENTS AND AWARDS

- Doctoral Research **Fellowship**, Nanophysics group, Duke University. 2001-2006
- Conference Presentation **Fellowships**, Duke University. 2004, 2005, 2006
- Teaching **Scholarship**, Graduate School, Duke University. 1999
- Graduate Aptitude Test in Engineering, **Ranked 1st** in Western zone (18th nationwide, India). 1998
- Ranked in **top 1%** of the Joint Entrance Examination held for IITs in India. 1995

PROFESSIONAL TRAINING EXPERIENCE

- American Physical Society (APS): Baltimore 2006, L.A. 2005 and Montreal 2004. Presented conference papers at the *APS March Meetings*.
- John von Neumann Institute for Computing (NIC), The Netherlands. 2002. Attended and interacted with scholars from computer science, mathematics, physics, and chemistry at NIC sponsored *European Winter School*, R.C.C Kerkrade.

RESEARCH EXPERIENCE

Applied Science

Duke University JET Quantum Optics Lab, Durham, NC. Summer 2000

- Developed an ultra low noise photo-amplifier circuit.
- Fixed other customized circuitries as a part of Atom Cooling and Trapping Lab.

Tata Institute of Fundamental Research Gravitation Lab, Mumbai. Summer 1998

- Customized a precision step-rotor for gravitational equivalence experiment.
- Developed a program in BASIC to interface experiment's data acquisition system.
- Awarded Graduate Fellowship based on my performance in the internship.

Theoretical Physics

- Discovered a new universality class and its exponents; Results published in *Phys. Rev. Letter*.
- Our result challenges the commonly believed theoretical predictions. New experimental findings for phase transitions in some superconductors as well as superfluids systems support our data.
- Carried out extensive Markov steps on 40 processors to simulate reliable data. Systemic and multiple analyses were applied to arrive at the result.
- Formulated optimized methods and computed properties such as hyperpolarizability in confined atoms with one, two, and many electrons as part of my junior thesis.

COMMUNITY SERVICE EXPERIENCE

- *Duke Outreach Program Instructor*, Taught Science and Astronomy for one year to 30-40 fourth graders at Durham public school at Forest View.
- *Mood-Indigo'98* Chief coordinator for the fine-arts events in one of India's biggest student cultural festival held in IITB Mumbai.
- Regularly participate and volunteer for *Yoga* and meditation camps; help keeps a balanced attitude and cooperative team spirit.
- *AID-Duke Volunteer*, a university student body involved in social welfare. Long time volunteer involved in organizing fund-raising events, projects review and management with annual budget of about \$40,000. Worked in different capacities including as treasurer and administrator.

REFERENCES

Available on Request.