Contact

www.linkedin.com/in/soumachaudhury (LinkedIn)

Top Skills

Optics
Matlab
Metrology

Languages

English
Bengali (Native or Bilingual)
Hindi (Native or Bilingual)

Honors-Awards

Intel Achievement Award, 2011

Publications

Quantum signatures of chaos in a kicked top
Quantum control of the hyperfine spin of a Cs atom ensemble

Souma Chaudhury

Manager, Optical Metrology at Corning Incorporated
Steuben County, New York, United States

Experience

Corning Incorporated
3 years 10 months

Manager, Optical Metrology
August 2021 - Present (1 year 9 months)
Corning, New York, United States

Sr. Measurement Systems Engineer
July 2019 - July 2021 (2 years 1 month)
Corning, NY, United States

Project lead and learner in machine vision applications.

Intel Corporation
Technology Development Engineer, CMP
January 2017 - June 2019 (2 years 6 months)
Portland, Oregon Area

Artificial Intelligence and Deep Learning towards enhancing optical process control methods in Chemical Mechanical Polish (CMP). Equipment and SW development in close collaboration with suppliers and internal supply chain organizations.

Intel Corporation
Engineering TD Manager
2014 - 2016 (2 years)
Hillsboro, OR

Hired, trained and built team of recent college graduates, delivering new fab analytics and automation solutions supporting Intel's process technology development.
Real-time analysis systems in Optical inspections, SEM point inspections and SEM CD measurements.

Intel Corporation
PTD MOD INTEG AND YIELD Engineer
2009 - 2013 (4 years)
Hillsboro

Semiconductor Process Development. Metrology. Advanced Process Control. Machine Learning. Yield Analysis, Automatic Defect Classification.
Image analytics and machine learning based automated process health monitors estimating yield impact. Real-time monitors, process control and disposition systems deployed throughout Intel's manufacturing process flow in fabs around the world.

University of Arizona
Graduate Student
January 2001 - December 2008 (8 years)
Tucson, AZ

• Operated and maintained a laser cooling apparatus to cool atomic gases to 2μK in a 10−7 Torr vacuum chamber.
• Accurate control of atomic spins and their measurement using laser polarimetry.
• Atomic Clocks and atomic magnetormetry.
• First experimental implementation of a quantum kicked top, a popular toy model to study quantum chaos.
Featured news in Nature: (The Butterfly Effect Gets Entangled) - http://www.nature.com/news/2009/091007/full/news.2009.980.html

Los Alamos National Laboratory
Summer Intern
May 2001 - August 2001 (4 months)

Theoretical and computational methods in quantum control. Programming and parallel computing on Beowulf-class Linux clusters. Advisor: Dr. Salman Habib.

Indian Institute of Technology, Kharagpur
Masters Project
August 1998 - August 2000 (2 years 1 month)

Design of Dispersion Compensated Fibers : Models of single mode optical fibers with special refractive index profiles to compensate for chromatic dispersion in 1550 nm transmission optical fibers.

Education

University of Arizona
PhD, Optics · (2000 - 2008)

University of Arizona, College of Optical Science

Ph.D., Optical Science · (2000 - 2006)

Indian Institute of Technology, Kharagpur

M.Sc., Physics · (1998 - 2000)

Presidency College, Kolkata

B.Sc., Physics · (1995 - 1998)

BGKV, Kolkata

Higher Secondary School · (1987 - 1995)