

Nipun Bisht

Chemical, Biological, Radiological & Nuclear Specialist - US Army

Hatfield, PA - Email me on Indeed: [indeed.com/r/Nipun-Bisht/e8257e6fb58a298d](https://www.indeed.com/r/Nipun-Bisht/e8257e6fb58a298d)

Detail driven engineer with over 5 years of experience, anticipated BS in Chemical Engineering and a track record of success in consistent achievement of engineering project goals. Efficient and organized team player with success in coordinating efforts within internal-external teams to reach and surpass established goals. Intermediate level skills in process engineering, research, and testing.

WORK EXPERIENCE

Chemical, Biological, Radiological & Nuclear Specialist

US Army - Reading, PA - March 2013 to Present

Pennsylvania Reading, PA

Army National Guard

Military Occupational Specialty: 74D (Chemical, Biological, Radiological & Nuclear Specialist)

Assist in the establishment of CBRN defense measures. Provide training advice and supervision regarding CBRN equipment and operations. Train military and civilian personnel on CBRN response operations. Operate and maintain CBRN detection and decontamination equipment. Serve on Biological Integrated Detection Teams, STRYKER NBC Reconnaissance Platoons, Tech. Escort Battalions, Spl. Forces & Ranger Units.

Lead Technologist, Formulation Sciences

Dow Chemical Company - Spring House, PA - January 2011 to Present

Assisted in Chemical R&D lab, with an initiative in biocide encapsulation in paints and coatings using pickering techniques. Prepared and tested samples using different techniques. Implemented different technologies for testing formulations, such as Infrared Spectrometry (ATR-IR), Gas Chromatography (GC)

Technologist, Emerging Technologies

PERSONAL AND CONFIDENTIAL - Spring House, PA - March 2010 to May 2010

Spring House, PA

Technologist, Emerging Technologies

Assisted in the Chemical R&D lab set-up. Maintained and initiated Standard Operating Procedures (SOPs) for new lab equipment such as coating stations. Categorized paints and polishes on the basis of viscosity, luminosity and surface crack formation. Troubleshooted minor equipment errors and reported major faults to the manufacturers technical support and arranged for maintenance.

PAD Materials R&D Engineer

Rohm and Haas Electronic - Newark, DE - April 2008 to September 2008

Assisted in the Chemical R&D lab. Prepared lab scale samples for polymer formulations and coatings. Incorporated variety of techniques (coagulation, solvent evaporation, etc.). Chemicals included solvents such as DMF and polymeric precursors such as polyols, polyamines and isocyanates. Physically characterized polymer solutions, coatings and solid polymers using a variety of techniques including viscometry, solids determination, microscopy, mechanical wear testing. Trained on SEMs and other analytical tools such as WYKO 8000, RSA3, and RDA3.

Plant Engineering Assistant

Exelon Nuclear Generation - Pottstown, PA - September 2007 to March 2008

Worked with groups comprising Site Engineering i.e., Programs, Emergency Core Cooling Systems (ECCS), Balance of Plant and Electrical/HVAC. Gained invaluable experience in understanding system interdependence, performance monitoring and equipment reliability. Worked on projects and assignments that directly reported to Nuclear Regulatory Commission (NRC) and Institute of Nuclear Power Operations (INPO). Gained experience in data collection, data trending, root cause evaluations, routine and surveillance testing. Helped system managers in developing Performance Monitoring Projects. Accompanied system managers regularly during walk-downs inside the plant and helped in data collection as well as equipment troubleshooting. Gained insight on Nuclear Safety, Highly Proceduralized Work Environment and acquired valuable skills like Print Reading Qualification, Radiation Worker/Foreign Material Exclusion Training and Confined Space Training. Active member of Site Diversity Council during length of my co-op. Got hands-on experiences on site wide forced and refuel outages.

Rohm and Haas Electronic - Marlborough, MA - September 2006 to March 2007

Materials

Research and Development Engineering Co-op

- Determined the performance of photo resist by measuring the mobility of acid/base in resist films.
- Gained experience with tools, equipment and chemistry including absorption spectroscopy, spin coating, volumetric equipment, and photo resist chemistry, theory of acid- base equilibrium and diffusion theory.
- Monitored acid diffusion in photo resist matrices via fluorescence spectroscopy.
- Gained insight on how acid propagated through a film is a different way of looking at a photo resist.
- Researched the behavior of a resist when its acid mobility was changed. Exposed to fluorescence spectroscopy, fluorescent pH indicators and worked in a clean room.
- Tested resist prototypes.
- Trained on state-of-the art lithographic tools such as ASML/800 scanner, TEL MARK8 track, KLA8100 SEM.

Laboratory Technician

PERSONAL AND CONFIDENTIAL - West Conshohocken, PA - September 2005 to March 2006

West Conshohocken, PA

Laboratory Technician

- Performed routine calibrations, tests, test set-ups, data collection and/or data analysis in accordance with recognized procedures like ASTM (American Society for Testing and Materials) and EPA (Environmental Protection Act).
- Based upon a combination of experience and written instructions, drew conclusions and wrote reports of project results.
- Assisted senior technicians in developing new methods and procedures.

High Pressure Liquid Chromatography - 2000 to 2000

2000 Hydro Particle Size Analyzer, Veeco-Dektek

Profilometer, Differential Scanning Calorimetry, etc. Actively participated in safety initiatives such as BBP, other monthly safety inspections, etc. Suggested various process improvements as well.

EDUCATION

Drexel University

2004 to 2007

Drexel University Essay Endorsement Grant

2004 to 2007

Bachelor of Science in Chemical Engineering

Drexel University - Philadelphia, PA

ADDITIONAL INFORMATION

Specialties

Process engineering, research, high throughput research & application testing for coatings, equipment troubleshooting, product development, bench-top chemistry. Dept. of Defense Certification in Hazmat Operations