

APARNA GARG

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EDUCATION

University of Washington, Seattle, WA

Master of Science, **Civil and Environmental Engineering**

CGPA: 3.50

Coursework: Water Chemistry, Biological Wastewater Treatment Systems, Fate and Transport of Chemicals in Environment, Physical-Chemical Wastewater Treatment Processes, Water Policy and Sanitation, Water System Management & Operations, Applied Limnology

Thapar University, Patiala, India

School of Chemistry and Biochemistry

Master of Science, **Chemistry**

June 2015

CGPA: 9.51

Sri Venkateswara College

University of Delhi, New Delhi, India

Bachelor of Science, **Chemistry**

June 2013

Graduated first class with distinction

SKILLS

Computer Skills

- **Languages:** C++, C language
- **Software:** SharePoint, AutoCAD, BioWin, Visual MINTEQ, Kintecus, Microsoft Excel, Microsoft Word, Linux, Schrodinger, MSDOS

Laboratory Techniques

- Granular Sludge Reactor System, NMR, UV/VIS Spectrophotometry, FTIR, Atomic Absorption Spectrophotometry, HPLC, Gas Chromatography, Column Chromatography, Flame Photometry, Gallery, Ion Chromatography System

INTERNSHIP EXPERIENCE

Environmental Data Management Intern Seattle Parks and Recreation

July 2016-Present

- Develop narratives for parks and facilities with known contamination and refine existing narratives to include significant data and clarify the environmental history of the park.
- Train and educate end users on how to use SharePoint and help develop workflows to ensure compatibility with business needs
- Integrate records system with other systems in the Department, and evaluate current systems to improve operations.
- Work in close association with the environmental analysts to better develop SharePoint.

Intern, under Dr. Anil Kumar Mishra, Scientist 'G'

June 2014- Aug 2014

Institute of Nuclear Medicine and Allied Sciences

Defense Research and Development Organization, New Delhi, India

- Developed ligand binding assays with Human Serum Albumin and studied their binding patterns and ADMET properties
- Learnt techniques like Quantitative structure-activity relationship (QSAR) modeling, Molecular Docking, Computer-Aided Drug Designing, Multiple Linear Regression

Intern in Green Chemistry June 2012–Aug 2012
Department of Chemistry, University of Delhi, New Delhi, India

- Extracted nanoparticles from tea leaves, coffee beans and rose leaves
- Synthesized biodegradable plastic from potato starch
- Extracted bio fuel from vegetable oil and prepared simple inorganic complexes of Nickel

**RESEARCH
EXPERIENCE**

Graduate Student Researcher Jan-March 2016
University Of Washington

- Characterizing TEPs present in wastewater samples
- Studying absorbance spectra using different dyes as probes

Thesis Project: "Dicyano-Benzimidazole Molecules as Ratiometric and Colorimetric Sensors for Anions"

Thapar University, Patiala, India Jan 2015-July 2015

- Synthesized dicyano probes to study the push-pull effect.
- Utilized dicyano probe successfully for the estimation of cyanide ions chemodosimetrically.
- Attained selective ratiometric detection of cyanide due to a change in its binding behavior from other anions.
- Developed an easy and selective low cyanide concentrations detection method.

PUBLICATIONS

Garg, A., Gupta, A.S., Luxami, V., Paul, K., (2016). Differential sensing of fluoride and cyanide ions by using dicyano substituted benzimidazole probe. Journal of Luminescence, 173, 165-170.

**VOLUNTEER
WORK**

Eco Auditor, Sep 2010– Aug 2011
Indian Youth Climate Network
Eco Audit Chapter, New Delhi, India

- Audited corporate companies and provided them with greener solutions for their offices
- Helped companies reduce their carbon footprint by almost 7% in a year

Volunteer June 2011– Aug 2011
National Foundation for India, New Delhi, India
Aragamee, Odisha, India

- Worked with marginalized and underprivileged communities in the tribal districts of Odisha
- Motivated tribal communities to mobilize for self-sustaining development initiative

**OTHER
ACTIVITIES**

Placement Coordinator, School of Chemistry and Biochemistry Aug 2014-July 2015
Center for Industrial Liaison and Placement, Thapar University

- Arrange campus interviews for placement of final year graduate students of Chemistry by inviting various public sector and private organization