

# Kanak Nakhare

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## **EDUCATION**

Georgia Institute of Technology Expected Dec 2012  
Masters of Science in Environmental Engineering GPA: 3.50/4.0  
Mumbai University July 2011  
Bachelor of Engineering in Chemical Engineering GPA: 3.75/4.0

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## **EXPERIENCE**

**Technical Intern, Arcadis US, Emeryville, CA** 2012

- Standardize routine groundwater monitoring reports for over 200 retail petroleum projects. Helped moving report figures from CAD into GIS
- Compiled linear regression data for MNA of TBA and MTBE and analyzed it. Wrote an abstract for the same with team composed of extremely competent members which was submitted to AEHS
- Prepared a proposal about the threats of emerging contaminants in public water utilities, submitted to WEF.
- Developed Project Management Diagrams using MS VISIO used in forecasting and budgeting.

**Undergraduate Research Co-op: Xylitol production by Fermentation,**

**Godavari Bio-Refineries, India** 2010-2011

Emphasized on conducting experiments to optimize the time to run a batch reactor to convert xylose to xylitol by yeast. Designed equipment for the hypothetical plant and carried out its economic and hazard analysis.

**Trainee Engineer, In-Plant Training, Rashtriya Chemicals And Fertilizers Ltd., Mumbai, India** June 2010

Compiled a report describing the problems encountered in an ANP manufacturing plant and recommendations for scale up after keenly learning the technical and managerial aspects of the plant.

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## **RELEVANT COURSEWORK**

**Graduate level:** Enviro Fluid Mechanics, Bioremediation, Environmental Policy

*Physiochemical processes: Basic water treatment, disinfection, ozonation, air stripping and membrane processes*

*Biological processes: Microbial kinetics, activated sludge process, nitrification/ denitrification*

Flow through Porous Media: Groundwater Modeling, Plume capturing, Well Hydraulics

**Undergraduate level:** Chemical Reaction Engineering, Transport Phenomena, Modeling and Simulation, Process design and development, Optimization.

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## **PROJECTS/ REPORTS**

### **Research**

Study of Microplastics as pollutants in oceans. Spring 2012

Advisor: Dr. Ching Hua Huang, Georgia Institute of Technology

Partition of persistent organic pollutants to microplastics. The project focused on the kinetics and equilibria of partitioning of the pollutants from ocean waters to the plastics. The main aim was to propose an experiment that will help generalize the sorption of pollutants to different microplastics.

### **Biological processes Graduate Project**

Modeling of a waste water treatment facility that uses nitrification/ denitrification processes in a sequencing batch reactor and observing the effect of predator prey mechanism on it. Spring 2012

### **Graduate Report**

Mercury Emissions from Coal- Fired Power Plants Fall 2011

Involved surveying papers to elucidate the chemistry of mercury in flue gases and its control techniques.

It also focused on epidemiology and the current regulations imposed by EPA.

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## **SKILLS**

- Computers and software: Microsoft Office, MATLAB, Chemcad, MS SQL Server, C++, Java, Microsoft Visio, R, Visual Minteq, EPI Suites.
  - Languages: English, Hindi, Marathi
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## **ACTIVITIES**

- Co-chair for organizing the Spring Symposium for Association of Environmental Engineers and Scientists
- Publicity Head for Indian Institute of Chemical Engineers.