Burhanuddin E Samiwala

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Education

Georgia Institute of Technology	Aug 2021 – May 2023

Master's in Industrial Engineering (Simulation, supply chain facilities, regression analysis, deterministic optimization)

Institute of Chemical Technology (ICT/ UDCT)	Mumbai, India
Bachelor's in Chemical Engineering **(Grade- 9.22 / 10)**	Aug 2017 – May 2021

Relevant Courses: Optimization of systems, process control, project economics, industrial management

Certificate Course in Practice of Chemical Technology – Silver Medalist	Dec 2019 – Aug 2020

Task scheduling, debottlenecking, HAZOP study, process intensification, human factors, and ergonomics

Internships

Adya Enterprise – Data Analysis Intern	July 2020 – Oct 2020

- Pre-processed experimental data of gas-liquid systems and tested various machine-learning algorithms
- Improved predictions of mass transfer coefficients by 13% as compared to standard correlations

Reliance Industries – Jamnagar Manufacturing Division	May 2019 – July 2019

- Performed detailed material and energy balance calculations of the polypropylene plant
- Identified the best efficiency point of the propylene blower to decrease pumping costs by 9%

Projects

Techno-economic assessment of an API manufacturing plant (Senior Design Project)	Aug 2020 – May 2021

Designed a 5 TPD plant, market and risk analysis, plant layout, process selection and optimization, economic viability

Optimization of process parameters for a gas scrubber	Jan 2020

Modelled a gas scrubber using Python and found the optimum liquid flow rate, packing height, and column diameter

Quality analysis of oilseeds using computer vision	Jan 2020 – April 2020

Developed a prototype that determines quality based on dimensions and average RGB value calculated using OpenCV

Achievements & Extracurricular Activities

- Managed a team of 20+ and raised $15,000 in sponsorship money for a chemical technology event: 'Vortex'
- 2nd prize among 150+ participants in a management competition: 'Corporate Tycoon'
- Organized ICT's Model United Nations and wrote for the international press
- Co-ordinated with 'Yatn' (an NGO) to organize a tree plantation drive in the outskirts of Mumbai
- Volunteered for ICT's Green Marathon to create awareness about water pollution
- 1st prize in a debate competition held by 'Spark': the literary festival of ICT
- 1st prize in an intra-collegiate photography competition for capturing rare cannibalistic behavior in snakes

Skills

Programming: Python • R • SQL **|** **Software**: Tableau • MATLAB • Arena • ASPEN

Languages: English • German (A2 level) • Hindi • Marathi • Gujarati

Relevant Online Courses: Introduction to OR, Operations Analytics, Inferential Statistics using R, Microeconomics