# HARESH VASWANI

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### **EDUCATION**

Rutgers, The State University of New Jersey (GPA:3.17/4.0)

Masters of Science in Chemical Engineering

New Brunswick, USA

September 2021–May 2023

Dwarkadas J. Sanghvi College of Engineering (CGPA:9.03/10)

Bachelor of Engineering in Chemical Engineering

Mumbai, India August 2017-May 2021

# WORK EXPERIENCE

**Rutgers, The State University of New Jersey** 

New Brunswick, USA

Research Assistant

February 2022-Present

- Preparation of samples for different granule size to test the uniformity of API using UV spectroscopy.
- Testing of pharmaceutical samples compressibility test, permeability test, and VFR using FT-4.
- Knowledge of QbD, cGMP and FDA regulations.
- Use of electronic notebook (ELN) for documenting laboratory work in a detail in accordance with GDP requirements

Part-Time Lecturer in the School of Arts and Science

February 2022-May 2022

- Working as a lab instructor for the course "Introduction to Experimentation".
- Experiments which are conducted include paper chromatography, volumetric analysis, and calculating empirical formula for different compounds, etc.

# Goldstab Organics Pvt. Ltd.

Vapi, India

Manufacturing Intern

December 2019-January 2020

- Studied the manufacturing process of PVC heat stabilisers
- Performed risk analysis and process calculations for sustainable calcium based stabilisers

#### Medibios Laboratories Pvt. Ltd.

Boisar, India

Chemical Engineering Intern

May 2019-June 2019

- Studied the manufacturing process of paracetamol tablets and perform the QC analysis
- Familiarized with manufacturing processes like granulation, mixing, blending, and packaging.

# ACADEMIC PROJECT

#### Final year project: Manufacture of API drug Acetaminophen

July 2020-March 2021

- Discussed the properties of acetaminophen along with pharmacological benefits.
- Studied the demand and supply by analyzing domestic and global markets.
- Manufactured by acetylation of para-aminophenol along with designing the PFD and P&ID.
- Designed the equipment such as reactor, crystallizer and did material and energy balances for the same.
- Evaluated the cost of API powder per kilogram with help of cost estimation analysis.

# Seminar: Applications of Nanotechnology in Cancer Research

- Explained how nanoparticles target cancer cells with help of EPR effect and active targeting.
- Discussed nanoparticle mediated cancer treatment for prostate cancer with help of micelles.
- Photodynamic therapy as well as thermal ablative approaches were discussed for application of NPs.

#### **TECHNICAL SKILLS**

- **Programming:** C, C++, Matlab, Scilab, Python
- **Software:** AutoCAD, COCO Simulator, Microsoft Word, Microsoft Excel, Microsoft Powerpoint, Adobe Photoshop, Canva, Aspen Plus, Libre Office.
- Courses: Advanced Transport Phenomenon, Chemical Engineering Thermodynamics, Analytical Methods, Kinetics and Reactor Design, Pharmaceutical Unit Operations, Pharmaceutical Organic Nanotechnology, Biotechnology, Food Technology, Process Equipment Design, Product Lifecycle Management, Total Quality Management, Finance Management.

#### LEADERSHIP QUALITIES

- Head of Sports Department: Trinity Cultural festival
- Head of Production and Quality Department at a startup in the healthcare sector: New Normal Technologies Inc.