# Ganesh Raghavendran

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# EDUCATION

### MASTER OF SCIENCE (MS) - CHEMICAL ENGINEERING

Sep 2019 - Jun 2021 (Expected)

University of California, San Diego

# BACHELORS OF TECHNOLOGY (B.TECH) - CHEMICAL ENGINEERING

Jul 2013 - Aug 2017

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPALLI, INDIA

# EXPERIENCE

### SENIOR ENGINEER (PROCESS) | GAIL INDIA LTD.

Aug 2017 - Jul 2019

- GAS CRACKING UNIT
  - Managed and Operated 900KTA capacity GCU I unit of PATA Plant as a Field Engineer
  - Trained in Yokogawa and Emerson Distributed Control Systems
  - Monitored the running operations of Furnace, Quench Tower and DM Water units.
  - Executed the planned startups and shutdown of 12MW Cracked Gas Compressor

### CHEMICAL ENGINEERING INTERN | RELIANCE INDUSTRIES LIMITED

May 2016 - Aug 2016

- AMINE TREATMENT UNIT
  - Analyzed the Ammonium Bisulphide corrosion in ATU Overhead Circuit
  - Worked with ASPEN HYSYS and PetroSim Simulation tools
  - Proposed 4 possible solutions with varied feasibilities

### **SOFTWARE ENGINEERING INTERN** | MONITPRO SOLUTIONS PVT. LTD.

May 2015 - Oct 2016

- Data Interpretation Portal
  - Facilitated in setting up the Real-Time data integration for the medium-scale chemical industries
  - Designed web applications for Treemap view of equipments and KPIs
  - Developed using VB.Net and C#

# **PROJECTS**

## TEM DIFFRACTION GRAPH CONSTRUCTION USING PYTHON | UCSD

May 2020

- Project based on Python2 environment to obtain diffraction graphs for TEM images
- Used python2 library to extract image and info from .dm3 files and used for reconstruction
- Used libraries like numpy,cv2 and matplotlib to do image processing and construct graphs

# **IMPROVING THE EFFICIENCY OF GSU** | GAIL INDIA LTD.

Apr 2018

- Enhanced the Gas Sweetening Unit(GSU)absorption rate in a simulated environment
- Modeled the unit using piperazine as activator in place of a proprietary activator
- Simulated the model with ASPEN HYSYS and MATLAB

# SARANSH - WEB P&ID PORTAL | GAIL INDIA LTD.

May 2019

- Digitalized the P&IDs of the plant by crowd sourcing the data from employees
- Designed and Developed a web portal for viewing and editing the digitalized P&IDs
- Included smart search of P&IDs based on equipment tag and line tag
- Set up front-end and back-end with Angular JS, PHP

# **AWARDS AND POSITIONS**

- 3RD PLACE 108 EMERGENCY HACKATHON 2017
  - Designed and Developed a mobile app and corresponding web app to issue and monitor emergency calls
- REGIONAL LEVEL PARTICIPANT WORLD SKILLS COMPETITION 2017
  - Represented the state of Tamilnadu in Web Development Category at World Skills Competition 2017
- HEAD OF WEB DEVELOPMENT FESTEMBER 2016
  - Designed, Developed and Monitored the Web Operations for the NIT Trichy Cultural Fest, Festember 2016

### SKILLS

CHEMICAL ENGINEERING

- Plant Operation, SOPs, PID

Tools

- Aspen Hysys, Matlab, AutoCAD, GIT, Vim,
- WEB DEVELOPMENT
- HTML, CSS, Javascript, JQuery, Angular JS - C. C++, Python, PHP, Java, SQL, VB.Net
- OPERATING SYSTEMS
- Linux. Windows

### Coursework

PROGRAMMING

- GRADUATE
- Nanoscale Modeling, Nano Engineering
- UnderGraduate
  - Fluid Mechanics, Mass and Heat Transfer, Chemical Reaction Engineering, Materials Science, Bio Engineering