AATAM GAJJAR

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EDUCATION

Dec 2022 (Expected) **UNIVERSITY OF CALIFORNIA, DAVIS** Davis, CA
M.S Chemical Engineering, **GPA- 4.0/4.0**
Research focus: Real-time optimization and control of process systems

June 2020 **THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA** Vadodara, India
B.S. Chemical Engineering**, GPA- 3.91/4.0**
Top 1% in the class, awarded **multiple scholarships**

SKILLS

Computational: Python, MATLAB, SQL, Aspen Plus, AutoCAD, HYSYS, HTRI, KORF
Engineering: Optimization, predictive modeling, multivariate analysis, nonlinear systems, linear regression, data analytics and visualization, APIs and ML libraries in python
Certifications: IBM Data Science Professional Certificate, Six Sigma Yellow Belt

EXPERIENCE

Jan – Present 2022 **UNIVERSITY OF CALIFORNIA DAVIS** Davis, USA
Graduate student researcher, El-Farra Research Group
Advisor- Dr. Nael El-Farra
- Current research focuses on machine learning and neural network based approaches for optimization and control in process systems. Other research interests include statistical process control and data analytics in process control.

Oct-Present 2021 *Graduate teaching assistant*
- Responsible for conducting laboratory sessions, grading assignments, and supporting term projects for upper-level undergraduate courses
- Prepared supplementary reference material for analyzing the experimental data using python and helping students develop their analytics skill set using python/MATLAB.

Jan-July 2021 **L&T TECHNOLOGY SERVICES (Top-5 ER&D Companies in India)** Vadodara, India
Engineering intern, Process engineering & optimization
- Collaborated with the core engineering team on the ongoing debottlenecking projects of multiple clients to increase their output without requiring high CAPEX.
- Developed simulation models to evaluate several operating scenarios to reduce OPEX of a refinery by 9%

Dec 2020-Jan 2021 **MICROTEK RESEARCH AND ANALYTICAL LAB** Vadodara, India
Research assistant
- Assisted in developing mathematical models in python using mechanistic equations to predict the choice of composition of multicomponent mobile phases in High Performance Liquid Chromatography (HPLC).

May-June 2019 **INDIAN OIL CORPORATION LTD (A Fortune-500 company)** Vadodara, India
Chemical Engineering Intern, Central Technical Services
- Gained overview of entire refinery processes. Also, sought opportunities to develop models to predict product yields using real time process and laboratory data to identify drivers of high yields and reduce low-value product yields.

Oct 2018-Oct 2019 **SPORTSKEEDA (Asia's largest all-sports website)** Remote
Analyst and Writer, Freelance
- Used python to analyze and visualize the data from the available statistics of various cricketers to identify patterns, strengths, and weaknesses of some of the batsmen. Additionally, published 24 articles based on such statistical comparisons to provide data backed comparisons of different players under specific conditions on a specific pitch.

PROJECT AND RESEARCH

June 2019-May-2020 **Plant Designing and Techno-Economic Analysis:** *Grade-A+*
Designed and proposed an alternate pathway to produce Phenol that reduced carbon emission by 5% and 17% lower cost. Integrated the concepts of chemical processes and modeling to conduct techno economic analysis of the plant and determine optimal plant design using models developed in python.

ADDITIONAL DATA

Awards & Honors **MYSY Scholarships-Government of Gujarat-** Awarded to top-1% engineering candidates in the state (2016); **Tuition Fee Waiver Scholarships- Government of Gujarat-** Awarded to the highest ranked student admitted to the program (2016-20); **Winner at national technical event**- Reviewed and presented next frontiers of development in carbon capture & storage (CCS) by the use of zeolite membranes.

Leadership **Coordinator at Training & Placement Cell**: **Facilitated** and **achieved 100**% job placements for my class; **Lead organizer, Footprints:** Planned and executed several aspects of this national technical event attended by 4000+ students and coordinated efforts to **raise $45k** in funds ; **General Secretary, Association of Chemical Engineers:** Led the team of 7 students to organize various technical workshops and alumni events; **Editorial Head at TedX MS University of Baroda** (2017): Published editorials for the website, campaigns and brochures.