Pradyum Soni
B.Tech – Chemical Engineering
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PROFESSIONAL EXPERIENCE

MACHINE LEARNING INTERN | Nuclei Technologies | **Awarded LOR**   [28 Jul'20 – 28 Sep'20]

MENTORING	▪ Allotted **40** mentees for 2 projects, Improved Best **Kaggle ranks** of mentees to 1.5k
CONTENT	▪ Delivered **20** topic's content for **LIVE** project; ML & Statistics course development

PROJECTS COMPLETED

STATE ESTIMATION PROJECT | Prof. Mani Bhushan | Python_3 | Github Link   [Aug'20 - Dec'20]

PURPOSE	Simulate Williams Otto Reactor (3 simul reactions) & Estimate Unmeasured States
METHODS	**Kalman filter**; EKF; Euler Integration; Perturbation of Inputs & Gaussian Noise
EVALUATION	**Plots**: States, Spectral Radii, Innovation, Estimation error; **Values**: RMSE; NEES

DESIGN PROJECT | Ethylene Oxide | **Prof.** RKM & JB | DWSIM | (5 members) | Drive Link   [Jan'21 – Apr'21]

PURPOSE	RnD on ETO plant setup; Present end-to-end solution w.r.t plant development
METHODS	Market Survey, Read Patents, Develop PFD, Material Balances, DWSIM Simulation
EVALUATION	Weekly Evaluation for 8-9 weeks by 2 professors including Report & Presentation

SELF PROJECTS | Kaggle Projects | Prototype Web App (Insurance Cost Web App: Link)   [Mar'20 – Aug'20]

Insurance Cost	Predicted Medical Insurance Cost by Lasso Regression & deployed model on Heroku
Call Drop Category	No Github Solution available; Predicted Call Drop Category: Multi-Label Classification

COURSE PROJECTS | Report-Based Course Projects   [Apr'21 – Aug'21]

Micro-Tweezers	**Prof**. Rohit; Novel approach, Fabrication, Mask Layout, Design, Packaging & Testing
Chemical Process	**Prof**. Jogwar; Performed Detailed level 5 design on Styrene Manufacturing

POSITIONS OF RESPONSIBILITY

CAPTAIN | CULTURAL MEET 4.0   [Nov '19 - Dec '19]

*Represented IIT Bombay for **5** competitions under dramatics genre & Improv comedy among **21+** IITs participating*

ROLE	▪ Responsible to build **5 teams;** Supervise production requirements using budget of **0.1Mn**
IMPACT	▪ **First** position in Improv; **Overall First-Runner Up** as part of 15+ team, leading 200 students

HOSTEL ALUMNI SECRETARY | HOSTEL 9 | STUDENT ALUMNI RELATIONS CELL   [Jul'18 - Jun'19]

*Part of **25+** membered H9 council; Part of **15+** membered team in SARC*

ROLE	▪ Drafted **HATS** report, hostel wish list targeting an approximate budget of **0.3Mn**
	▪ Organized Silver Jubilee Reunion; Conducted H9 Alumni visit for flagship event: Alumination
IMPACT	▪ Air-Conditioned **Study Room Project** was started for H9 students with appropriate budget

EXTRACURRICULARS

TECHNICAL SKILLS	▪ C++; Python3; MS Office; MATLAB; DWSIM
ONLINE COURSES	▪ Certified Python Data Science Professional – **IBM** (4 courses & Project) ▪ Fundamentals of Statistics – **MITx;** Using python for Research - **Harvardx**
AWARDS	▪ **Hostel Special Mention'19 & Hostel Cultural Color'20** in Culturals ▪ Bagged **5th position** in SPGC; **Directed** the **10+** team for **60+** hours ▪ Performed in PAF'19, '20; First in MDGC'19; Written & Directed MDGC'20
NOVELS & FOUNTAIN PEN	▪ ("King-killer Chronicles") – **RothFuss;** ("Stormlight Archive") – **Sanderson** ▪ Fountain pen afficionado – **Regalia** writing labs, **Nakaya** Lacquer, **MB** 149