Suraj Menon

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EDUCATION

University of Michigan **Ann Arbor, MI**
MEng in Medical Product Engineering and Development *August 2024-May 2025*
B.S.E. in Biomedical Engineering *August 2020-May 2024*
Minor in Computer Science, Multidisciplinary Design
GPA 3.68/4.00
Coursework: Biomedical Design, Biomedical Instrumentation and Design, Design and Applications of Biomaterials, Artificial Intelligence and Machine Learning, Software Engineering, Biostatistics, Qualitative Physiology, Tissue Engineering, Biophysical Chemistry, Quantitative Cell Biology. Biofluid Mechanics

EXPERIENCE

Center for Health Engineering and Patient Safety **Ann Arbor, MI**
Software Engineer *May 2024-present*
- Designing discrete event simulation in python to model Michigan Medicine schedules and patient appointment requests to generate metrics on schedule utilization, patient delay time, and patient volume
- Employing Agile Development to accelerate prototype development across functional teams
- Constructing core simulation database to be used across 3 Michigan Medicine joint projects
- Finalizing departmental tool to schedule 50% of new patients within 2 weeks of their appointment request

University of Michigan **Ann Arbor, MI**
Research Assistant *May 2021-present*
- Applying machine-learning using Python sklearn to predict metabolic variation across 1000 cancer cell lines from matched oct-omics data to classify major influencers of cancer metabolism
- Ran Shapley Analysis to discover redox metabolism and signaling-related transcripts, features, proteins, and phosphoproteins as top global regulators for 225 metabolites in cancer metabolome
- Unveiled main predictors for use in combination therapies to target compensatory metabolic modulators

Procter & Gamble **Lima, OH**
Packing Operations Intern *May 2023-August 2023*
- Implemented product reject tracking system to reduce net savings losses by $9,325
- Configured digital interlock to standardize product changeover process to limit reject scrap by 10%
- Generated Power BI dashboard to easily identify trends in material losses across 8 production lines
- Executed hands-on technical trainings with 22 operational teams to ensure operational excellence

ACTIVITIES

Michigan Health Engineered for All Lives **Ann Arbor, MI**
Team PACT Project Co-Founder and Lead *August 2021-present*
- Founded project to design a non-invasive cervical cancer screening urine collection device for the Korle Bu Hospital in Ghana to enhance the 2.5% cervical cancer screening rate for women in Accra
- Leading 9 engineers to design a prototype in SolidWorks for clinical testing with 300 patients
- Performing FEA on 4 device parts in COMSOL to confirm device functionality
- Partnered with faculty and industry mentors to draft proposal for $150,000 Gates foundation grant

Worcester Polytechnic Institute **Worcester, MA**
Device Developer *May-August 2022*
- Led project to design a device to detect 21 unique counterfeit medications for communities in Nigeria
- Applied Fusion360 to model device to analyze active pharmaceutical ingredient content in medication
- Found to correctly identify counterfeit medications with up to 90% accuracy

SKILLS

- **Platforms:** Windows, Mac OS, Linux, GitHub
- **Languages:** C++/C, MATLAB, Python, SQL, JavaScript, Java, JSON, HTML, CSS
- **Programs:** SOLIDWORKS, Autodesk Fusion 360, COMSOL, Visual Studio Code, Power BI, Arduino