Luke Chiang
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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
Leaders for Global Operations (LGO) Fellow 2020 – Present
Candidate for MBA, MIT Sloan School of Management, May 2022
Candidate for SM in Mechanical Engineering, MIT School of Engineering, May 2022

- PM Experience: Technical Product Manager (Roborace), MIT Driverless - Implemented operator training, retrospectives, and product backlogs to collaborate with software engineers, capture improvements, help prioritization, and increase engineering hours, resulting in an improvement from last place to 4th place out of 6 teams
- Award/Honor: Recipient of William C. Hanson, Don W. Davis, and Janice A. Klein LGO Leadership Fund
- Leadership/Clubs: Subcommittee Chair, LGO Internship Committee; Active member, PM Club; Active member, Tech Club
- Relevant Coursework: Digital Product Management, Product Design and Development, Artificial Intelligence, Architecting and Engineering Software Systems, Engineering Data Science, Intro to Robotics, and Seminar in Quantum Computing

UNIVERSITY OF CALIFORNIA, LOS ANGELES Los Angeles, CA
BS in Chemical and Biomolecular Engineering, Magna Cum Laude 2011 – 2015

- Leadership: Committee Chair, UCLA Engineering Mentorship Program; Mentorship Chair/Club Liaison, Tau Beta Pi

WORK EXPERIENCE

AMGEN Cambridge, MA
Graduate Fellow, Operations Data Strategy June 2021 – Present

- Generating a machine learning model to predict Amgen's future emission profile based on forecasted drug product demands
- Engaging 13 stakeholders to build a digital scenario planning tool to help guide Amgen's capital investment decisions and achieve 100% carbon neutrality, 40% water reduction, and 75% waste reduction by 2027

CARGURUS Cambridge, MA
Product Management Intern January 2021 – February 2021

- Collaborated with engineering team to develop 8 ideas and implement 2 of them, improving user subscription by 30%
- Developed and presented initial strategy to bring Digital Retail to international markets, including competitive landscape analysis, product roadmap, feature prioritization, and potential roadblocks

MARATHON PETROLEUM Carson & Wilmington, CA
Tech Service Refining Engineer II 2019 – 2020

- Optimized process unit by clearly defining product specifications and unit bottlenecks and working with operations to systemically increase Jet fuel processing into Diesel by 20% during the Covid-19 pandemic, capturing $1.2M in one month
- Led a team of 12 including engineers, operators, and contractors to identify root cause and provide process optimizations to improve water separation issues, leading to a 20% increase in diesel production and $8M/year in profits
- Convinced local refinery leadership team to perform an extended startup to restore approximately 6% of catalyst activity after an emergency shutdown, avoiding $4M loss profit from reduced production rate

Tech Service Refining Engineer I 2017 – 2019

- Leveraged the expertise of multi-disciplinary team of 7 to eliminate the root cause of corrosion and failures of heat exchangers which had cost $1.5M over the past 10 years
- Engaged Operations on deficiencies in current process control scheme and in turn advised Process Controls in redesign of artificial intelligence's objectives, generating $1M/year in recovered propylene
- Spearheaded conception, design, and installation of pipe to redirect gasoline for benzene processing, thereby expanding refinery flexibility and avoiding a loss profit of $3M/month

Entry Process Engineer 2016 – 2017

- Increased throughput by 20% and profit by $4M/year without capital investments by interviewing Operators, systematically identifying and optimizing energy inefficiencies, and building tools to track KPI's
- Challenged commonly believed cause for compressor inefficiencies which cost $9M over the past 15 years and convinced Operations to set up a sampling schedule to identify real root cause, resulting in a redesign to address new findings
- Persuaded and guided Operations to implement new technologies during start up and shut down by presenting economic analysis and Technologist's support, resulting in a reduction in time by 70% and $700k in business improvement

Rotational Development Program 2015 – 2016

- Documented, presented, and trained more than 20 operators on artificial intelligence software, empowering them to troubleshoot and manipulate software to independently drive profitability

ADDITIONAL INFORMATION

- Skills: Python, MATLAB, R, JavaScript, C++; Languages: Conversational proficiency in Mandarin
- Hobbies: Avid Lakers fan, lifting because cardio is too tiring, mending friendships after Settlers of Catan