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

- Award/Honor: Recipient of William C. Hanson, Don W. Davis, and Janice A. Klein LGO Leadership Fund
- Relevant Courses: 6.S090 - Python, 6.034 - Artificial Intelligence, 1.125 - Architecting and Engineering Software Systems, and 15.087 - Engineering Statistics and Data Science

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

- GPA: 3.86, *Magna Cum Laude*
- Leadership: Co-Founder/External Vice President, Society of Petroleum Engineering; Committee Chair, UCLA Engineering Mentorship Program (MentorSEAS); Mentorship Chair/Club Liaison, Tau Beta Pi – engineering honor society

WORK EXPERIENCE

MARATHON PETROLEUM - Fortune 50 Largest US Refining Company 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
- Initiated review and resolved incorrect feed meters, resulting in $5M/year in recaptured profits

UCLA Recruiting Lead / Intern Supervisor 2016 – 2020

- Provided guidance to 4 interns through goal setting, weekly updates and performance reviews, resulting in 100% conversion
- Mentored high school and college students through career discussions, networking events, resume reviews, and mock interviews

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 and installation of pipe to redirect gasoline for benzene processing, thereby expanding refinery flexibility and avoiding a loss profit of $3M/month
- Volunteered to backfill Gasoline Planner position in the Economics and Planning department for 1 month, learning economics and supply chain of the gasoline market and transitioning gasoline product from summer blend to winter blend

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 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
- Coded calculations to automatically analyze performance and track inefficiencies throughout heat exchanger's 5-year cycle to justify cleaning during maintenance windows, leading to increased heat recovery and lowered emissions

Process Engineering Intern Summer 2014

- Analyzed and recommended optimizations to recover wasted propane and improve profitability by $2.9M/year

ADDITIONAL INFORMATION

- **Skills**: C++, MATLAB, Python, R, JavaScript
- **Languages**: Conversational proficiency in Mandarin
- **Hobbies**: Basketball player and avid sports fan, fitness, board games – especially Settlers of Catan