LUKE CHIANG

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA

Candidate for MBA, MIT Sloan School of Management, May 2022 2020 – Present

Candidate for SM in Mechanical Engineering, MIT School of Engineering, May 2022

- Technical Product Manager (Roborace), MIT Driverless – Implemented operator training, retrospectives, and product backlogs to collaborate with software engineers, capture improvements, drive prioritization, and focus efforts, ultimately increasing engineering hours and resulting in top 3 finishes in our last 3 races (had not placed in the top 3 before that)
- Awarded the William C. Hanson, Don W. Davis, and Janice A. Klein LGO Leadership Fellowship
- Subcommittee Chair, LGO Internship Committee; Active member, PM Club; Active member, Tech Club
- Courses: Digital Product Management, Product Design and Development, Artificial Intelligence, Software Systems and Architecture, Engineering Data Science, System Optimization, 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

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

EXPERIENCE

AMGEN Cambridge, MA

Graduate Data Science Fellow, Operations Data Strategy Summer 2021 – Present

- Building a digital scenario planning tool spanning 13 cross-functional stakeholders to guide Amgen's capital investments to achieve 100% carbon neutrality, 40% water reduction and 75% waste reduction by 2027
- Enabling adherence to sustainability goals through development of machine learning based emissions forecasting for new product launch

CARGURUS Cambridge, MA

Product Management Intern Winter 2021

- Collaborated with engineering team to ideate 8 initiatives for improving user subscriptions, ultimately A/B tested and implemented 2, increasing email subscription by 30%
- Developed and pitched 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 Engineer I-II (2017-2020), Entry Process Engineer (2016-2017), & Rotational Program (2015-2016)

<u>Product & System Design</u>

- 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 1 month
- 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
- Challenged commonly believed cause for operational inefficiencies which cost $9M over the past 15 years, convinced Operations to set up a study to identify real root cause, and redesigned equipment to address new findings
- Initiated design of artificial intelligence's objective after interviewing Operations to achieve ideal feed quality before making other process operation changes, increasing recovery of valuable product by 10% and profit by $1M/year
- Interviewed frontline operators to identify energy efficiency initiatives and built KPI tracking tool to drive behavioral change, ultimately leading to an increase in throughput by 20% and profit by $4M/year

<u>Influencing Without Authority</u>

- Presented business case and convinced local refinery leadership team to perform extended startup to restore approximately 6% of catalyst activity after emergency shutdowns, avoiding $4M from reduced production rate in the future
- Persuaded and guided Operations to apply new technologies during start up and shut down by providing economic analysis and Technologist's support, resulting in a reduction in time by 70% and $700k in business improvement
- Empowered 20 operators to use artificial intelligence software to drive profitability by documenting, presenting, and training them the software's objectives and on various use cases

<u>Leading Cross-Functional Teams</u>

- Led a team of 12 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
- Leveraged expertise of multi-disciplinary team of 7 to eliminate root cause of corrosion and failures of heat exchangers which had cost $1.5M over the past 10 years

ADDITIONAL INFORMATION

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