
EDUCATION



University of Southern California - Viterbi School of Engineering
Master of Science - Engineering Management (Industrial & Systems Engineering) - Graduated: May 2010



University of Colorado at Boulder - College of Engineering & Applied Sciences
Bachelor Of Science - Aerospace Engineering Sciences - Graduated: May 2009

PROFESSIONAL EXPERIENCE



Google LLC

Product Manager, Geo Machine Intelligence (Google Maps)

2021 - Present

- Primary AI/ML product lead for a ~50 person engineering team focused on scaling Google Maps' ML infrastructure.
- Develop strategy and product roadmap for Geo ML signals, infrastructure, and data products.
- Engage with users and client teams across Geo, Google, and externally to drive current and future adoption of ML.
- Collaborate closely with Product Management, Program Management, Engineering Leads, and the UXR teams to define and build the best products possible.



Verily Life Sciences (Google Life Sciences)

Product Manager, Baseline Clinical Studies Platform

2020 - 2021

- Develop product roadmaps, drive the definition of product features/requirements/specifications, and work cross-functionally to build a next-generation clinical trials software platform.
- Strong cross-functional collaboration to ensure our products are intuitive/easy-to-use, compliant with clinical/legal/quality/regulatory requirements, and meet customer needs.
- Work closely with industry partners (primarily pharma & medical device companies) to stand up end-to-end clinical trials using the Baseline platform, including trial design, IRB/regulatory approvals, recruiting/enrollment, monitoring, study closeout, and data analysis.
- PM lead during 2020 Code Red to build/deploy [COVID-19 testing program](#) using Baseline framework; scaled to 350+ total testing sites nationwide and administered over 2 million COVID-19 tests (as of December, 2020).
- Personally responsible for multi-language support, takeout/wipeout integration, outbound data reporting to county/state health departments, and more.

Product Manager, AI Screening & Diagnostics

2016 - 2020

- Set product roadmap, technical specs, & lead design/development of new class of AI-enabled diagnostic medical devices.
- Develop product strategy based on legal/business requirements, market trends, & technology landscape.
- Directly responsible for both setting direction (driving product vision/roadmap, definition of requirements/technical specifications, prioritization/key decision making, cross-functional alignment) & execution (design cycles, prototype builds, clinical studies, deployments).
- Liaison & product representative to numerous cross-functional stakeholders across engineering, clinical, UX, regulatory, legal, & more.
- Define, validate & execute new business models & partnerships.

Program Manager, Special Projects

2016 - 2016

- Lead & oversee the growth of a cross-functional program for technology & product development.
- Determine data collections strategy in the product development & clinical prep cycles.
- Develop tools, protocols, & processes that create highly relevant data to inform R&D & product development.
- Ensure data collection results & learnings reach stakeholders, & that R&D & product teams rely on data from the program to power business decisions & to create the best R&D concepts & products.
- Influence the cross-functional teams to work closely together & to partner with the program to drive innovation across the company.



Apple Inc.

Engineering Project Manager, Health Technologies

2014 - 2016

- Drove development of early stage R&D projects primarily in health/wellness/fitness/medical technology; identified & defined priorities, risks, scope of work, schedule, & budget for advanced engineering concepts.
- Led development of top-level system architecture & guided design decisions on advanced concepts.
- Coordinated/conducted human studies through all stages of the research lifecycle - from definition to analysis.
- Communicated project status/information between cross-functional teams & management.
- Drove suppliers/vendors, integrating deliverables & schedules into projects.



Sierra Nevada Corporation, Space Systems

Program Manager, Dream Chaser Space System

2012 - 2014

- Drove development of early stage R&D projects primarily in health/wellness/fitness/medical technology; identified & defined priorities, risks, scope of work, schedule, & budget for advanced engineering concepts.
- Assisted in development of top-level system architecture & guided design decisions on advanced concepts.
- Coordinated/conducted human studies through all stages of the research lifecycle, from definition to analysis.
- Communicated project status/information between cross-functional teams & management.
- Drove suppliers/vendors, integrating deliverables & schedules into projects.



NASA Jet Propulsion Laboratory

Cost Systems Engineer

2010-2012

- Developed complex cost engineering estimates for competed proposals & directed space missions/instruments.
- Worked on proposal teams supporting advanced system design/concepts/configuration, risk assessment/analysis/mitigation, & production of all relevant proposal documents.
- Designed/developed software tools including parametric/analogy based cost models & marginal sensitivity analysis tools for engineering design trades.
- Created/maintained project WBSs, manage responsibilities & interface with partnering organizations.



Space Science & Exploration Consulting Group

Consultant

2009-2010

- Produced white papers that framed mission architecture & science requirements for proposed planetary missions.
- Performed QA for planetary spacecraft IRAD products associated with the Space Science customer community.
- Developed concepts that met specific requirements for planetary science mission design.
- Developed customer briefings & formulated product packaging & delivery concepts.



Research Analyst

Summer, 2008

- Discovery/research of financial institutions, investment banks, asset management firms, etc.
- Developed software tools using platforms such as Bloomberg, SNL Financial, MS Excel, VBA & MATLAB.
- Represented company in meetings with top financial corporations.
- Creation/upkeep of financial models.

AWARDS, ACHIEVEMENTS, & MISCELLANEOUS

- [Graduated](#) high school four years early; earned master's degree at age 19.
- Ten U.S. patent filings (three published, seven pending).
- Winner, NASA Cost Estimating Team of the Year Award, 2011.
- Founded multinational 501(c)(3) [website](#) helping to connect more than 65,000 sperm/egg donors and offspring.
- Startup mentor through [Alchemist Accelerator program](#); mentor/investor to dozens of early stage tech companies.

PATENTS

- US10708473B2: [Ocular imaging with illumination in image path](#)
- US10827924B2: [Dynamic illumination during retinal burst imaging](#)
- US20190125184A1: [Active Visual Alignment Stimuli In Fundus Photography](#)
- US20200237214A1: [Retinal cameras having movable optical stops](#)
- US10937533B1: [Localized Learning Algorithm for Medication Routine Recognition and Reminders](#)
- US20200305711A1: Retinal Imaging System with User-Controlled Fixation Target for Retinal Alignment
- Visual reconstruction of eye position for alignment feedback in retinal imaging
- Mechanism for Alignment and Inter-Eye Repositioning of Ophthalmic Instruments
- External Alignment Indication/Guidance System for Retinal Image
- Patient Identification Detection, Verification and Data Input Method For Retinal Imaging

RELEVANT ADVANCED COURSEWORK

- Thermodynamics; using the text "Introduction to Thermal Systems Engineering" by Moran.
- Aerodynamics; using the text "Foundations of Flight" by Anderson and "Foundations of Aerodynamics" by Chow.
- Statics, Structures & Materials (including FEA); using the text "Mechanics of Materials" by Vable.
- Aircraft Flight Dynamics; using the text "Aircraft Flight Dynamics" by Schmidt.
- Orbital Mechanics & Attitude Dynamics; using the text "Orbital Mechanics: For Aerospace Engineering Students" by Curtis.
- Electronics & Communications; using the text "The Art of Electronics" by Horowitz.
- Material Science Engineering; using the text "Essentials of Materials Science and Engineering" by Askeland.
- Foundations of Propulsion; using the text "Elements of Propulsion" by Mattingly.
- Energy & Power for a Sustainable Future; using the text "Sustainable Energy" by Tester.
- Project Management; using the text "Project Management: A Managerial Approach" by Merideth.
- Entrepreneurial Business Planning Preparation; using the text "Writing a Successful Business Plan" by Lawrence.
- Leadership; using the text "The Art of Leadership" by Manning.
- Advanced Engineering Economic Analysis; using the text "Advanced Engineering Economics" by Park.
- Engineering Management of Government Funded Programs; using the SAE550 course reader.
- Law & Finance for Engineers; using the ISE565 course reader.
- Management of Engineering Teams; using the text "Managing Teams" by Holpp.
- Strategic Management of Technology; using the text "Technology Strategy for Managers and Entrepreneurs" by Shane.
- Operations Research; using the text "Operations Research" by Taha.

- Initial Systems Engineering on Competed Missions using JPL institutional training materials.
- BioBasics: Biotech for the Non-Scientist using Biotech Primer institutional training materials.
- Protecting Human Research Participants using NIH institutional training materials.
- Fundamentals of Innovation using Google institutional training materials.