

## JOHN RYAN ZEEMAN

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### EDUCATION

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#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Leaders for Global Operations Fellow | GPA 4.9/5.0

MBA, MIT Sloan School of Management, May 2026

SM in Chemical Engineering, MIT School of Engineering, May 2026

Cambridge, MA

2024 – 2026

- Selected Coursework: Advances in Biomanufacturing, Competitive Strategy, Global Supply Chain, Design in Mammalian Systems and Synthetic Biology, AI/ML in Molecular Engineering and Cell Biology, Chemical Reaction Engineering
- Activities: President, Sloan Golf Club; Chair, LGO Seminar; President, AMA Club; Sloan Sports Analytics Conference

#### NORTHWESTERN UNIVERSITY

BS in Chemical Engineering – McCormick Undergraduate Honors Program | GPA: 3.9/4.0

Minors: Computer Science, Economics || Study Abroad: London School of Economics, Summer 2019

Honors and Activities: Cum Laude, Tau Beta Pi, Omega Chi Epsilon Society, TEDx Director, Tour Guide

Evanston, IL

2017 – 2021

### EXPERIENCE

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#### AMGEN

Graduate Research Fellow – Advanced Modeling and Simulation

Thesis: *A Machine Learning Framework for Optimized and Reduced Experimentation in Cell Culture Process Characterization*

Cambridge, MA

June – Dec 2025

- Built a business case for AI-enabled process characterization (PC), quantifying \$725K+ annual site-level savings, ~25% faster study cycle times, and ~\$15M per molecule in time-to-market value
- Engineered hybrid mechanistic-machine learning models and a reusable Python framework to predict multi-PQA outcomes and redesign PC studies, achieving equivalent accuracy with 54% fewer experiments vs. standard DOE approaches
- Designed change management and adoption roadmap for deploying new ML tools across Amgen's global network, aligning scientists, managers, and quality/regulatory teams on a phased implementation plan

#### DELOITTE

Consultant (Promoted from Analyst 2023; Summer Scholar 2020) – Cell and Gene Therapy Practice

Chicago, IL

2020 – 2024

- Crafted strategy and business case for digital health platform; designed organizational structure and operating model enabling client to secure \$71B federal care delivery contract
- Developed board materials, strategy, revised operating model, and new financial model for platform business strategy to grow PE-backed health-tech client from \$238M to \$1B in revenue over 5 years
- Led risk assessment of US-based rare-earth element and mineral supply chains for DoD, identifying 7 recyclable mine waste feedstocks, 10 biological separation techniques, and \$1.2B in federal funding for investment in cross industry collaboration
- Conducted stakeholder & expert interviews, market & secondary research to produce detailed commercial 5-year launch plan to mid-sized CAR-T pharmaceutical client covering all activities to commercialize future pipeline Cell Therapy assets
- Directed strategy to grow Deloitte's Cell and Gene Therapy practice from \$100M to \$250M, coordinating 35 leaders and managing cross-functional team in firmwide strategy sessions

### SELECTED PROJECT WORK

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INSPEK – Seed Stage Bioprocess Analytics & Hardware Startup

MBA Consultant – Strategy & Growth

Remote

Oct – Dec 2025

- Developed investor-ready Series A materials including market landscape, competitive positioning, and commercialization roadmap, and built bottom-up GTM strategy across biopharma manufacturing and PAT applications for a bioprocess analytics platform
- Supported commercial strategy contributing to first signed enterprise contract; company positioned for 2026 fundraise

MIT SLOAN ACTION LEARNING – Series A Climate-Tech Startup

MBA Consultant – Operations Lab

Cambridge, MA

Feb – May 2025

- Created operational and capital planning tools that enabled Series A cleantech startup to model production scenarios, optimize workforce scheduling, and plan for efficient new facility selection, design, and process scale-up
- Established core operating processes and decision frameworks for an engineering-led team, enabling founders to focus on fundraising and product development

#### NORTHWESTERN UNIVERSITY

Research Assistant – Richards Soft Matter and Colloid Laboratory

Publication: [Quantifying hydrodynamic contribution to transport in non-Brownian suspensions, PNAS, June 2022](#)

Evanston, IL

2019 – 2021

- Designed, conducted, and analyzed experiments on the conductive properties of metallic nanoparticle suspensions

### ADDITIONAL INFORMATION

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- Languages: Mandarin Chinese (Proficient)
- Software Skills: Java, Python, C/C++, R-Studio, Stata, MATLAB, AutoCAD, Salesforce, GitHub
- About Me: Eagle Scout, lived in Singapore as a child, die-hard Cubs fan (born Opening Day), bread-baker, amateur golfer