

Chris Saulnier

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Current Role **Nirrin Technologies**

Billerica, MA

Sr. Director of Product Design (April 2022 – Present)

Director of Engineering (July 2019 – March 2022)

Systems Engineer (Jan 2019 – June 2019)

- Conceptualized, developed, built, and tested prototypes of novel, high-precision instruments for biopharmaceutical manufacturing by engaging directly with customers to identify limitations in their current processes. This initial work led to the development of core IP that underlies Nirrin's product portfolio today.
- Built the product development team, hiring mechanical, electrical, and software engineers and managing engagements with outside consultants to develop our initial product offering launching in Q2 2024.
- Was a core member of the team leading the transformation of Nirrin from an R&D-centric startup to a product-focused organization, implementing agile methodologies and establishing appropriate engineering control processes.

Patents

Hassell, B.A., Saulnier, C.R., Ho, J.C., Marchessault, D.P. (2021). *Device and Bioreactor Monitoring System and Method*. U.S. Patent Application No. 20210062133. Filed March 4, 2021.

Education **Massachusetts Institute of Technology**

Cambridge, MA

PhD in Product Design Developing, teaching, and evaluating innovative approaches to design education. Emphasis on project-based human-centered product design classes for undergraduate mechanical engineering students. Created and implemented "Design for the Wilderness" class that develops students' design thinking, engineering science worldview, and leadership skills through design/build projects and wilderness travel. Extensive experience designing, implementing, assessing and communicating the results of qualitative and quantitative research studies. *GPA: 5.0 / 5.0*

Master of Science in Technology and Policy, September 2015

Relevant Coursework: Law, Tech., and Public Policy; Microeconomic Theory and Public Policy; Science, Tech., and Public Policy; Theory and Practice of Public Policy *GPA: 5.0 / 5.0*

Dalhousie University

Halifax, Canada

Bachelor of Computer Engineering, June 2012

University Medal in Computer Engineering (awarded for highest GPA)

Teaching

MIT Mechanical Engineering, **Introduction to Design**, (Lab Instructor Fall 2017)
MIT Mechanical Engineering, **Product Engineering Process** (Mentor Fall 2017)
MIT Mechanical Engineering, **Toy Product Design** (Lab Instructor Spring 2017)
MIT Global Leadership Program, **Design for the Wilderness** (Creator/Instructor 2014-2017)
MIT Engineering Systems Division, **Leadership Development** (Instructor Fall 2014)

Publications 2 first-author journal articles; 6 first-author peer-reviewed conference publications.

Prior Work **Outward Bound Canada (Summer 2012 and 2013)**

Canmore, Canada

Instructor

- Guided 17-day expeditions facilitating group and individual leadership development set against a backdrop of backcountry wilderness travel and survival skill development.

Dalhousie Student Union (2010 – 2012)

Halifax, Canada

President and CEO

- Managed four full-time student Vice Presidents and nine career full-time staff members in an organization with over 125 part time student employees; provided a diverse array of services with a three million dollar yearly operating budget.
- Served as the Chair of the Canadian Alliance of Student Associations; developed policy and acted as the spokesperson for over 320,000 students at 26 member institutions regularly providing print, radio and television interviews.
- Provided strategic guidance to Dalhousie University through voting membership on the University Senate, Board of Governors, and other university committees.

Internships

ODIM Brooke Ocean (8-months); developed embedded real-time firmware for a laser optical plankton counter; and **Acceleware (4-months)**; developed a data compression technique that increased speed and preserved accuracy of high-speed mathematical simulations on GPUs.

Leadership

Outward Bound Thompson Island, Developed High School Physics Outreach (2015-2017)

MIT Graduate School Leadership Institute, Founding Fellow and Facilitator (2016-2017)

MIT Outing Club Board of Directors, Member at Large and Climbing Chair (2014-2018)