

Alexander Bird

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EDUCATION:

UNIVERSITY OF TORONTO - Toronto, ON, Canada

Expected Graduation May 2025

Bachelor of Science Engineering Science | Major: Biomedical Systems Engineering | Minor: Engineering Business

COURSES/EXAMS:

ENGINEERING SCIENCE		BIOMEDICAL SYSTEMS ENGINEERING (BMS)		ENGINEERING BUSINESS
Intro to Civil Engineering	Engineering Math & Computation	Modeling, Dynamics & Control of Biological Systems	BioMed. Engineering Technologies	Fundamentals Accounting & Finance
Fundamentals of Electrical Circuits	Calculus I	BMS Engineering: Organ Systems	Biomaterials & Biocompatibility	Microeconomics
Classical Mechanics	Calculus II	BMS Engineering: Cells & Tissues	Molecular Biophysics	Macroeconomics
Molecules & Materials	Calc III Ordinary Diff. Equations	BMS Engineer: Molecules & Cells	Introduction to Neuroscience	Economic Analysis/Decision Making
Electromagnetism	Vector Calculus	BMS Engineering: Computational Systems Biology	Patents in Biology & Med. Devices	Markets & Competitive Strategy*
Thermodynamics & Heat Transfer	Fluid Mechanics	Eng. Sci. Seminar: BioMed Careers	Cellular & Tissue Biomechanics*	People Management & Organizational Behavior*
Quantum & Thermal Physics	Linear Algebra	Organic Chemistry & Biochemistry	Design of Effective Products*	
Fund. of Biomedical Engineering	Probability & Statistics	Applied Polymer Chemistry	Cellular & Molecular Biology of the Synapse*	
Praxis I: Foundation of Eng. Design	Intro to Computer Programming	Science and Engineering*		
Praxis II: Eng. Design & Ethics	Comp Algorithms Data Structure			
Engineering Ethics & Society	Digital & Computer Systems			

* 2024/25 Course

University of Toronto, Engineering Society | Student Consulting Association | Cube Club - Biomedical Engineering | Running Club | Wrestling Club |

THESIS and INTERNSHIP: to be completed coming academic year

2024-2025

BUSINESS PROJECTS:

Biomedical Technology Project | *Biomaterial & Medical Device Product Development: Steerable Guidewire*

Winter 2024

- Stakeholders - UofT Cardiologist and surgical team

Capstone Design Project | *Biomedical Systems Engineering Design: Metastable Surgical Tools*

Winter 2023

- Stakeholders - Mount Sinai surgeons.

Engineering Business Case Competition | *Business Analysis & Industrial Engineering: Logistics Optimization*

Fall 2023

- Stakeholders – Sardo Foods. Awarded 1st Prize UofT Engineering Business Review.

Praxis III Eng. Science Design Project | *Business Analysis & Process Engineering: Manufacturing Re-engineering*

Winter 2022

- Stakeholders: Business Owner and process manager, Georgia Tech peer review.

WELLINGTON COLLEGE - Crowthorne, Berkshire, UK (incl. exchange student United World College Of Southeast Asia, Singapore).

2015 to 2020

COURSES/EXAMS

INTERNATIONAL BACCALAUREATE (2019-2020)		GCSE (2015-2018)		
ADVANCED LEVEL	STANDARD LEVEL	Mathematics	Design Technology	English Literature
Mathematics	Economics	Physics	Computer Science	French
Physics	English	Chemistry	Geography	
Chemistry	French	Biology	English Language	

Duke of Edinburgh Gold Award | Global Social Leaders Initiative, Shanghai | LAMDA Public Speaking G6 | ABRSM Piano G5 | Athletics | Captain Clays Team | Community IT Support |

WORK EXPERIENCE

Imago Restaurants - Toronto, ON, Canada | **Management Trainee**

Summer 2022

- Customer Service, Stock Control, Supplier co-ordination, Bookkeeping and Cash Management, Service Engineering

Ideaz - Glastonbury, CT, USA | **Rapid Prototyping Engineering Intern**

Summer 2019

- Refined product concepts through step-by-step engineering design process to prepare for manufacture.

University of Surrey Advanced Technology Institute - Guildford, Berkshire, UK | **Research Assistant**

Summer 2018

- Administered stress testing on nanotube transistor designs using Plasma Enhanced Chemical Vapor Deposition.

LEADERSHIP & VOLUNTEER ACTIVITIES

Rustic Pathways Critical issues Summit - Cambodia and Thailand | **Sustainability Initiative**

2019 - 2020

- Developed *hydroponic farming* plan for floating village communities on the Mekong River. Awarded Social Innovation design challenge prize.

Life Remodeled - Detroit MI | Mayor's "Grow Detroit's Young Talent" **Intern/Volunteer**

July 2017

- Role model to teens; blight removal in surrounding neighborhood; assisted with outreach for local community projects.

Bowery Mission - New York, NY USA | **Volunteer**

June 2016

- Prepared meals for the homeless and served food; cleaned kitchen, storeroom and performed stock control.

SKILLS AND OTHER QUALIFICATIONS

Design: Rapid Prototyping, CAD, Product Development, Design Optimization, Business Analysis, Engineering Design Process.

Tools: Fusion 360; Solidworks; *Programming, Verilog/C/C++/Python.*

Other Proficiencies: Excel; Microsoft Office; French (conversational); customer engagement/sales.

US & UK Citizen, Canadian Permanent Resident.