Nicholas Taluzek

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EDUCATION

Dominican University

Masters of Art in Teaching

Chicago, IL

GPA: 3.94, Illinois Professional Educator License in Middle School Science Education

August 2018

Illinois Institute of Technology

Bachelor of Science *magna cum laude* in Aerospace Engineering

Chicago, IL

GPA: 3.81

May 2015

EMPLOYMENT EXPERIENCE

McMaster-Carr Supply Company

Elmhurst, IL

Product Development Analyst

11/2020 – Present

- Assessing existing product offerings in our catalog and identifying opportunities for new product additions to meet customer needs in Industry 4.0
- Compiling and analyzing product information in coordination with manufacturers to curate new products selected for our distribution catalog

YMCA of Metropolitan Chicago

Chicago, IL

STEAM Director

03/2019 – 11/2020

- Developed STEAM curricula for association-wide summer camps, after school programs, and family engagement events
- Trained staff in best practices for STEAM program facilitation
- Pioneered online virtual youth summer programming and managed a team of counselors to serve over 500 youth during Summer 2020

Carver Innovation Center

Chicago, IL

Coordinator

08/2018 – 03/2019

- Managed the operations of the makerspace including machine operation, servicing customers, and leading workshops in digital fabrication technologies
- Served clients by fabricating product prototypes through the use of digital fabrication techniques of laser cutting, vinyl cutting, and 3D printing

Perspectives Charter Schools – Rodney D. Joslin Campus

Chicago, IL

STEM Teacher

08/2015 – 06/2018

- Developed several full year class curricula related to fields of science and engineering: *Introduction to Engineering* (6th-12th grade), 7th Grade *Life Science*, 8th Grade *Physical Science*, *Scientific Inquiry: Best Practices as a Scientist*, and *Electrical Engineering* (6th-12th grade)
- Conceptualized and facilitated STEM focused after school programs such as video game development, 3D computer aided design, and web development
- Founded and coached school's FIRST Tech Challenge Robotics Team for 6th-12th grade students

Chicago Children's Museum

Chicago, IL

Maker Corps Member

06/2015 – 08/2015

- Created new programming for children to have hands-on experiences with science and technology
- Facilitated in Tinkering Lab space by assisting children and families with various tools and design materials

Project SYNCERE

Chicago, IL

Engineering Program Facilitator

05/2015 – 08/2015

- Developed curriculums for middle and high school class programs related to STEM topics
- Facilitated a 6-week engineering summer camp program for 28 high school students

Fluid Dynamics Research Center, Illinois Institute of Technology

Chicago, IL

Undergraduate Researcher with Professor Dietmar Rempfer

09/2014 – 05/2015

- Created a meshfree data processing method for wind turbine CFD simulations using Star CCM+ software

Texas A&M University, Aerospace Department   College Station, TX
Undergraduate Researcher with Professor Sharath Girimaji   06/2014 – 08/2014
- Analyzed hydrodynamics of fish locomotion utilizing ANSYS CFD software
- Engineered a mechanical fish fin used in water tunnel and visualized the flow via particle image velocimetry

RELATED EXPERIENCE

The Odd Artisan   Chicago, IL
Sole Proprietor, www.theoddartisan.com   06/2015 – Present
- Rapid prototyping and small scale manufacturing of consumer products for clientele using digital fabrication techniques (CAD, 3D printing, laser cutting, etc.)
- Managing online retail of handmade woodworking crafts and 3D printed products

Teach for America   Chicago, IL
Corps Member   06/2016 – 05/2018
- Participated in 2-year intensive training program to develop skills and knowledge in best teacher practices to achieve significant gains in student achievement
- Engaged in professional development including seminars, discussion groups, workshops, individual and group reflections

Parker Hannifin Chainless Challenge   08/2014 – 04/2015
- Designed and built a hydraulic powered bicycle as part of a Parker Hannifin sponsored competition
- Oversaw assembly of the hydraulic circuit and the mounting hardware design

Spirulina Algae Cultivation   01/2014 – 05/2015
- Spearheaded and lead a project to develop a spirulina algae cultivation system for home use
- Investigated the conditions for best algae growth rate
- Started development of an open-source electronics monitoring and automation system for algae farming

Interprofessional Project: Makerlab Integration into High School Curriculums   01/2015-06/2015
- Developed training workshop for teachers to integrate makerlabs into NGSS compliant curriculums
- Advised the Southland Metropolitan Higher Education Consortium about makerlab integration in schools
- Facilitated the pilot workshop sponsored by Governors State University for 5 high school teachers
- Identified needs of teachers, students, and makerspace managers through surveys and interviews

Museum of Science and Industry – Wanger Fab Lab Volunteer   09/2014-12/2016
- Assist the facilitation of Fab Lab workshops with guests ages 10 and up
- Support guests through digital design processes with 2D and 3D computer software
- Operate 3D printers, laser cutters, and vinyl cutters for guests during workshops

Mark Sheridan Math & Science Academy – Afterschool STEM Club Volunteer   02/2015-04/2015
- Guide students age 9 to 13 through science activities in an afterschool club setting
- Assist the teacher with classroom management of students

Interprofessional Project: Developing Sustainable Production Support Systems   08/2013-12/2013
- Identified improvements for powder coating manufacturing process in Quam-Nichols Company
- Multidisciplinary teamwork to create recommendation for manufacturing improvements

COMPUTER SKILLS   **TECHNICAL SKILLS**

3D CAD – Fusion 360, Inventor, Solidworks   3D Printing – Fused Deposition Modeling
Adobe Illustrator, Inkscape   3D Printing – Digital Light Processing
Microsoft Office Suite   Laser Cutting and Engraving
ANSYS Fluent, Star CCM+   Arduino C/C++ microcontrollers
MATLAB   Electronics Prototyping/Soldering
WordPress CMS   STEM Curriculum Planning and Development
Adobe Photoshop, Lightroom, Premiere   Woodworking
                                              Photography