

TAYLOR MACMILLAN

EXPERIENCE

Software Engineering Intern | Centre for Addiction and Mental Health

May 2018 - Aug. 2018

- Spearheaded a project to revolutionize the analysis of neuroimaging data, acting as a liaison to Blue Brain throughout the deployment of a local instance of the Blue Brain Nexus data management platform
- Implemented a Brain Health Knowledge Graph, designed to model more than 33,000 data points using provenance and semantic relations
- Created SHACL validation schemas to standardize neuroimaging data models, compliant with the JSON-LD specification
- Pitched project work to industry leaders at the 2018 INCF Congress
- Conducted user research on internal laboratory workflows and applications for project requirements formulation
- Analyzed qualitative and quantitative data to pinpoint inefficiencies and develop improvement recommendations

Junior Electrical Engineer | Callidus Engineering

Sep. 2017 - Dec. 2017

- Designed and calculated load requirements for lighting, power, and systems layouts in AutoCAD; commercial and multi-unit residential
- Analyzed changing client requests to layouts and equipment, adjusting designs and resizing equipment and conduits
- Worked with internal team leads to create standardized drafting guidelines to be deployed across all teams

Junior Engineer | Electrical Contacts Limited

Jan. 2017 - Apr. 2017

- Designed and implemented a scheduling system that allocates available resources to current job orders to improve productivity
- Drove cross-functional collaboration to improve the versatility and lifespan of die sets through standardized SolidWorks drawings
- Streamlined plant renovations with the development of new AutoCAD floor plans focussed on ergonomic accessibility

PROJECTS

Arduino | Applied combinational logic to create a unique Morse Code password, testing user memory and movement accuracy

Human-Centered Design | Underwent thorough design iteration to develop an innovative system for timely medication dispensing for older adults with memory loss

SolidWorks | Grand Piano, Tire & Wheel Assembly, Road Bicycle

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SKILLS

User-Centered Design

Heuristic Evaluation

Persona Development

Workflows

Prototyping

Iterative Design

Data-Driven Decision Making

Fast-paced adaptability

Driven to pursue challenging tasks and creative problem resolutions

Exceptional written and oral communication skills

Experience working with:

Figma

Python, C++, JSON, HTML & CSS

Digital Circuit Design,

Microcontrollers

Solidworks, AutoCAD

EDUCATION

Systems Design Engineering

University of Waterloo

Class of 2021

Design, Systems and Society,
Human Factors in Design

PUBLICATION

XNAT Data model extensions to nexus – graph database representations of multi-modal data

INCF 2018 - F1000 Research

PASSIONS

UW Engineers Without Borders

UW Triathlon Club

Engineering Orientation Leader

Engineering Society Volunteer

Outdoors Enthusiast