

THOMAS BEALL

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EDUCATION

Bachelor of Biomedical Engineering (B.Bm.E) | UMN, Minneapolis, MN

Expected May 2021

- Cumulative GPA: 3.53/4.00

PROFESSIONAL EXPERIENCES

R&D Biomedical Engineer Intern | ISurTec, St. Paul, MN

June 2019 – August 2019

- Led calcification level testing of ureteral stents with an in-house coating vs commercial stent
- Conducted friction and mechanical testing on stents with surface modifications
- Automated data analysis of encrustation data using Microsoft Excel
- Drafted an Arduino-based system to mimic the urinary system for stent testing

Undergraduate Researcher (Johnson Neuromod Lab) | UMN, Minneapolis, MN

November 2018 – Present

- Used computer software (FSL, AMIRA, 3D Slic3r) to overlap MRI & CT scans of patients' brains to generate tracts
- Created a detailed document for new lab members to get acclimated to lab work
- Edited MATLAB code for data analysis and generation of axons within neuron tract 3D Files

Hospitality Specialist & Office Assistant | UMN, Minneapolis, MN

May 2018 – December 2018

- Controlled emergency situations regarding violations to emergency responders
- Collaborated with custodians & supervisors to provide customer service to guests staying for summer

PROJECTS

"GuideDog" Ultrasound Sensor for the Blind | UMN, Minneapolis, MN

March 2019 – May 2019

- Arduino-based ultrasound sensor for the blind which vibrated to alert user of nearby objects
- Led the development of algorithm for increasing motor vibration frequency with increased proximity of objects

LEADERSHIP

Senior Patrol Leader (Eagle Scout) | Boy Scouts of America Troop 109, Okinawa, Japan

May 2015 – January 2017

- Controlled overall decisions while delegating responsibilities & planning wilderness recreation activities
- National Youth Leadership Training Completed

Community Service Project | Airinen Orphanage, Okinawa, Japan

December 2016 – April 2017

- Led a team of Marines, scouts, family, and friends to construct 4 concrete benches and a fence for an orphanage

OTHER EXTRACURRICULAR ACTIVITIES

Corporate Relations Officer (Society of Asian Scientists & Engineers) | UMN, Minneapolis, MN

May 2019– Present

- Created a Python program to automate sending personalized emails to companies for sponsorship
- Negotiating sponsorships with companies interested in SASE
- Reaching out to companies to host events on campus for students to learn about job opportunities and information about relevant companies
- Leading event planning for corporate relations events and assisting other Officers with cultural events

US Naval Hospital S2M2 Program | Camp Foster, Okinawa, Japan

July 2014 – June 2014

- Shadowed Biomedical Technicians, Surgeons, Pharmacists, Cardiologists & Radiologists

Far East STEMinar | Tsukuba University, Japan

September 2016 – October 2016

- Presented research on particle/grain flow, modelled landslides & flooding based on geographic spatial data
- Analyzed fluidity of smaller granules in vibration and earthquake mitigation mechanisms

SKILLS

Software Skills: SOLIDWORKS Associate Certified; MATLAB; Mathematica; R programming; Arduino (C/C++); 3D Slic3r; FSL; Amira; Word; Excel; PowerPoint; Outlook; Google Drive Suite; Blender; Python

Prototyping Skills: Laser Cutting; 3D Printing; Breadboarding; Basic Lathe; Basic Mill; Band saw;