

Daniel Mishler

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EDUCATION

Indiana University, Bloomington

Bloomington, Indiana

GPA: 4.00/4.00

2017-2021

- B.S. in Intelligent Systems Engineering
- B.S. in Physics

Will begin a PhD. in Computer Engineering at University of Tennessee, Knoxville, on August 1st, 2021.

RESEARCH EXPERIENCE

Neutron Spin Rotation

Bloomington, Indiana

Undergraduate in Dr. Mike Snow's Lab

Spring 2020-present

- Creating instrument drivers in LabWindows for multiple instruments present in the apparatus
- Project seeks to verify (or potentially disprove) predictions of the standard model at low temperatures

PhysiCell

Bloomington, Indiana

Undergraduate in Dr. Paul Macklin's "MathCancer" lab

Spring 2018 - Spring 2020

- PhysiCell is an extendable Free and Open Source software specializing in cell simulation to gain insights into cancer treatments
- Frontend development for PhysiCell and implementation of user guides
- Created 'xml2Jupyter', a software that generalizes any xml framework to an easily understandable frontend (This is where my publication stems from)

OpenBCI

Bloomington, Indiana

Brain Computer Interface, under Martin Swany, ISE dept. chair

Fall 2017

- OpenBCI: implement ways to control a remote control car using signals from the brain.
- Made heavy use of neural networks and 3D design to implement several sensors around the brain

PUBLICATIONS

- [1] R. Heiland, **D. Mishler**, T. Zhang, E. Bower, and P. Macklin, "xml2jupyter", in *2019 Journal of Open Source Software*, Apr. 8, 2019, p. 01408.

TEACHING

- **Undergraduate Instructor** at Indiana University Spring 2019,2020,2021
Software Systems Engineering (11688)
- **Mathematics Tutor** at Indiana University (Academic Support Center) Fall 2018 - Spring 2020
Finite Mathematics, Calculus I-IV, Differential Equations
- **Undergraduate Instructor** at Indiana University Fall 2019
Engineering Principles (10212)

SKILLS

- **Programming Advanced:** C, Python
- **Programming Intermediate:** C++, Verilog, LabWindows, ARM, x86, SQL, (Jupyter)
- **Design:** Fusion360, Adobe (Illustrator, Premiere, & Photoshop), Cura, Trotec
- **Concepts:** Networks, Operating Systems, Windows, Linux, Optimization, Databases, Natural Language Processing, Machine Learning

PROJECTS

- Pocket Scientist Indiana University - Capstone
Engineering Senior Capstone Project Fall 2020-Spring 2021
- User focused web application with Database parser that scans papers and databases for claims to improve the reliability of information in the field. SoulWare Website.
- Coup/Resistance Indiana University
Personal Project Summer 2020-present
- Coding common games on an online server to practice concepts

SCHOLARSHIPS AND AWARDS

- Cheng Wu Innovation Challenge - Finalist 2018,2021
- IU Founders Scholar/Dean's List 2018-2021
- Burnett-Masters scholar 2019

EXTRACURRICULAR ACTIVITIES

- Physics Club: Officer 2017–2021
Club meets weekly for discussion on Physics, talks from faculty, and planning. Responsible for planning majority of IU's Physics outreach, especially to children in elementary and middle school.
- Dungeons and Dragons at IU: Founder 2018–2021
Largest active student organization at Indiana University. Club is an umbrella for people interested in playing Tabletop Roleplaying Games to find a community at IU.
- Music involvement Fall 2008–Current
Have dedicated approximately 10,000 hours to music. Instruments include Trumpet, Piano, electric bass, Guitar, Ukulele, and voice. Play music for nonprofits/fundraisers multiple times a year and lead local worship bands.

EMPLOYMENT

- General Motors** Austin, Texas
Software Development at IT Innovation Center Summer 2020
- Developed frontend/backend for data science models and internal company tools.
 - Pioneered a new initiative to move data science at GM from a manual quarterly report to a consistent and automatically updated application.
- NSWC Crane** Crane, Indiana
Electrical Engineer - Radio Frequency Countermeasures Summer 2019
- Testing and Evaluation for Department of Defense Naval Systems.
 - Heavy work with radio hardware and signal propagation.