Brendan Inglis

Mechanical Engineer

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https://bji219.github.io/

Brendan Inglis

bji219

EDUCATION

Lehigh University (09/2020 - 08/2022)
MS, Mechanical Engineering
3.93 GPA

Lehigh University (08/2015 - 06/2019)
BS, Mechanical Engineering
3.41 GPA

REFERENCES

Hannah Dailey
Former PhD Research Advisor
732-320-7248
hlr3@lehigh.edu

Jordan Inacio
Former Lab Colleague
610-751-9577
jvi211@lehigh.edu

Cody Wimmer
Former B. Braun Colleague
484-515-8062
codywimmer@gmail.com

INTERESTS

Piano
Basketball
Snowboarding
Hiking
Biking
Reading

LANGUAGES

Spanish
Intermediate

Lifelong learner interested in solving unique multi-disciplinary problems involving programming in a variety of languages.

SKILLS

MATLAB
Python
Bash/SLURM
RStudio/Shiny
Raspberry Pi
Arduino
C++
Microsoft Office

WORK EXPERIENCE

Lehigh University (01/2023 - Present)
Visiting Scholar

- Consulting on a research project to prepare manuscript for publication
- Performing statistical analysis, designing figures, and technical writing

Lehigh University (09/2020 - 08/2022)
PhD Candidate Research Assistant

- **MATLAB**: Wrote programs to convert files to different formats for use in multiple CAD programs, manipulated files for extraction of raw data, created custom programs for statistical analysis on large datasets. Custom material assignment programs for hardware integrated 3D models of bones.
- **Bash**: Utilized Lehigh's HPC server to run cpu-intensive research. Created custom .sh scripts to run multiple different softwares in harmony and to collect, analyze, and interpret results. Understanding of SLURM and resource allocation.
- **Python**: Created unique image processing workflows in Paraview to present data in visual format.
- **RStudio & Shiny**: Created custom web applications to showcase research project data. Performed statistical analysis and created custom plots using ggplot2
- Published research in Nature Scientific Reports and CMBBE, co-author on multiple other research studies
- Explored parallel FEA capabilities of MOOSE using C++

B. Braun Medical Inc. (06/2019 - 12/2020)
Career Development Rotational Program Engineer

- Gained professional development experience collaborating daily with technicians, colleagues, and management.

PROJECTS

Design Portfolio (01/2021 - Present)
GitHub Pages Homepage

Home of my Design Portfolio which contains details on my education, research, and personal projects listed below and more. Gained experience using HTML, CSS, and markdown to customize my website.

Mindful Notifications (01/2023 - Present)
Custom Python Notifications

Created a custom Python script to scrape YouTube for video the latest video publish date for some of my favorite creators. Utilizes the Spotify Developer API to get Podcast publish dates for my favorite podcasts. Runs a cron-job on my Mac to execute the script once a week, and if there are new videos or podcasts, the script sends me an email notification.

PiCamera (09/2022 - Present)
Raspberry Pi Machine Learning

Wrote a Flask web application using Python to control the raspberry pi camera and motion servos over the internet. Implemented Tensor Flow machine learning algorithm to classify objects captured by the camera and track them using PID-controller logic following online tutorial.

VOLUNTEER EXPERIENCE

Children's Hospital of Philadelphia
Piano Volunteer

- Played holiday and contemporary music in CHOP's atrium on their Steinway grand piano

https://www.chop.edu/

Habitat for Humanity Lehigh Valley
ReStore Volunteer

- Organized & cleaned donated furniture/items in the intake warehouse
- Prepared items for sale & helped customers find things in store

https://habitatlv.org/