Nicholas Dailey

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Education

University of Illinois Urbana-Champaign (Urbana, IL) • GPA: 3.87/4.0   Aug 2018 - Dec 2022
B.S. Nuclear, Plasma, and Radiological Engineering and Applied Mathematics
Concentration: Plasma and Fusion Science and Engineering
Minor: Physics
- Made the Dean's List (FA 2019, SP 2020, and SP 2021)
- Inducted into Phi Eta Sigma Honor Society
- Inducted into National Society of Collegiate Scholars
- Inducted into Alpha Nu Sigma National Honor Society
- Recipient of the Patterson Family Scholarship
- Developed an app for CS125 that placed first in the class competition

Canton High School (Canton, IL)   Aug 2014 - May 2018
High School Diploma
- Inducted into National Honor Society
- Illinois State Scholar

Experience

University of Illinois at Urbana-Champaign (ZLab Research Group)   Urbana, IL
Undergraduate Research Assistant   Jun 2021 - Present
- Used LAMMPS to model the dynamics of molecular fluid systems
- Calculated structural and dynamical quantities for multi-particle fluids modeled with a Lennard-Jones potential using LiquidLib
- Submitted jobs to the campus cluster using Slurm Workload Manager
- Frequently made use of MPI and OpenMP parallelization for computations

NetMath   Champaign, IL
MATH 285/286 Mentor   Oct 2019 - Jul 2020
- Graded assignments for students enrolled in Introductory Differential Equations
- Mentored students about key course concepts

Marion Manufacturing / Morton Machining dba   Morton, IL
Engineering Intern   May 2018 - Aug 2018
- Created 3D models and prints of numerous parts to be used in the manufacturing process by engineers and machine operators
- Used CAM within Fusion 360 to create CNC machining programs for various lathe and mill parts
- Assisted in setup and ran a HAAS CNC Lathe and a CNC Mori Seiki Horizontal Mill
- Utilized depth gauges, port gauges, thread gauges, calipers, and low tolerance dial micrometers
- Assisted in the new product introduction process by organizing, verifying, and signing off on executive, business, engineering, and order reviews
- Completed a project for Allison Tooling involving taking images of tools then organizing them by use and size

Peoria Production Shop   Peoria, IL
Picker / Packer   May 2017 - Aug 2017
- Responsible for picking material to different shipping locations   & Jun 2019 - Aug 2019
- Required accuracy and ability to follow procedures and work independently without direction
- Made zero errors

Canton High School Science Olympiad   Sep 2014 - Apr 2018
- Placed 2nd at state in the Optics event in 2017
- Placed 5th at state in Game On programming event in 2015
- Received multiple first-place finishes at the regional level in various events

Skills

Fusion 360   Wolfram Mathematica   G-Suite   LAMMPS   Python   Java   LaTeX   Spanish