BILAL ABDUL HALIM

1001 N Byrne Rd ⋆ Toledo, Ohio 43607

(567) · 698 · 0941 ⋆ Bilal.AbdulHalim@rockets.utoledo.edu

EDUCATION

University of Toledo, Toledo, Ohio *August 2020 – May 2022*
Master's of Science in Mechanical Engineering
Concentration in Fluid Mechanics

Overall GPA: 4.0

University of Toledo, Toledo, Ohio *August 2015 – May 2020*
Bachelor's of Science in Mechanical Engineering
Concentration in Applied Mathematics

Overall GPA: 3.9

EXPERIENCE

University of Toledo May 2020 – Present
Graduate Researcher *Toledo, Ohio*

- Simulated and studied crack formation in ice using Abaqus.
- Implemented the Abaqus Python modules to script and post process data.
- Optimized Abaqus jobs to run on the Ohio Super Computer using Unix Shell commands.
- Prepared and presented reports and presentation using Markdown and LaTeX.

Learning Enhancement Center October 2016 – May 2020
Engineering & Mathematics Tutor *Toledo, Ohio*

- Tutored students individually and in groups all fundamental Mathematics and Engineering courses.
- Guided students through complex mathematical and engineering problems.
- Encouraged independent learning through different techniques.
- Managed and trained new tutors on different skills and techniques.

Plastic Technologies Inc January 2019 – August 2019
Finite Element Analysis Engineer *Holland, Ohio*

- Translated various physical problems to accurate FEA models.
- Conducted stress and thermal analysis on different plastic packages.
- Improved company's R&D department through Abaqus Scripting (Python).
- Worked closely with the design team providing suggestions based on FEA results.
- Guided customers to an optimum package design through iterative FEA.
- Wrote and organized proposals and reports for customers.

PICSSL June 2017 – January 2019
Material Science Researcher *Toledo, Ohio*

- Lead a project on pressure-sensitive foams.
- Conducted a plethora of polymer characterizations XRD, DSC, SEM, FTIR, UV VIS.
- Designed and built a setup for in-situ pressure vs. transparency measurements, with a published patent.
- Utilized Python and Excel to interpret data, generate high-quality charts and propose hypotheses.
- Presented proposals and reports for specialized faculty members.

TECHNICAL SKILLS

FEA & CAD	Abaqus, SolidWorks, NX, Autocad
Software & OS	Microsoft Office Suite, Linux, Vim
Computer Languages	Python, MATLAB, C, AWK, Bash, LaTeX