Micah Best

Mechanical Engineering Undergraduate
Texas A&M University

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Education

Degree	Institute	GPA	Year
B.S. Mechanical Engineering	Texas A&M University	3.1	2019-2023
M.S. Nuclear Engineering	Texas A&M University	4.0 (Current)	2023-2025

Experience

- **Texas A&M University** *Aug. 2022 - Present*
  Undergraduate Student Researcher College Station, TX
  – Continued research in Molten Salt Reactors, specifically the Molten Salt Research Reactor (MSRR).
  – Further developing SyTH project to anaylze and visualize the components and system of the reactor. Analysis is performed using FEA and results are visualized using VTK.
- **Veracity Nuclear, LLC** *June 2023 - November 2023*
  Nuclear Software Engineer - Independent Contractor Knoxville, TN
  – Developed Python software, rxView, to visualize results from Shift and OpenMC outputs in VTK format.
- **Oak Ridge National Laboratory** *June 2023 - July 2023*
  Science Undergraduate Laboratory Internship (SULI) Program Knoxville, TN
  – Modeled aerodynamic drag coefficient of autonomous heavy-duty truck platoons
  – Created model to predict drag coefficient values for implementation with control systems to improve fuel economy
- **University of Texas** *June 2022 - Aug. 2022*
  Mechanical Engineering Summer Intern Austin, TX
  – Developed a program called SyTH to analyze the thermal-hydraulics involved within MSRR, a nuclear reactor. The program solves the thermal-hydraulic system by calculations and visualizes the results in VTK format.
  – Worked alongside the Senior Research Fellow to learn more about thermal hydraulics and software development.
- **Forsythe Brothers Infrastructure** *June 2021 - Aug. 2021, Dec. 2021 - Jan. 2022*
  Civil Engineering Internship Manor, TX
  – Achieved proficiency in the use of construction equipment such as using excavators and back-hoes
  – Communicated with contractors and inspectors to ensure that work met required specifications
  – Worked directly with a Civil Engineer to learn surveying and other relevant skills
- **Texas A&M University Transportation Services** *Jan. 2020 - Aug. 2022*
  Student Bus Driver College Station, TX
  – Transport Passengers on predetermined routes while following local traffic regulations
  – Adhered to company-determined schedules and routes to ensure timely arrivals and departures
  – Performed all duties with personable communication and professionalism, including bus operation and passenger interaction

Projects

- **SyTH - System Thermal Hydraulics** *June 2022*
  Software that developed to solve nuclear reactor systems and visualize the results
  – **Tools & technologies used**: Python, C++, Visualization Took Kit (VTK)

- **Senior Design Project** *January 2023*
  Designing an airfoil for a VTOL UAV for the Office of Naval Research and the Army Research Lab
  – **Tools & technologies used**: CFD, CAD, Wind Tunnel Testing

- **SULI Internship Project** *June 2023*
  Drag Coefficient Modeling of Heavy-Duty Vehicle Platooning using System Identification
  – **Tools & technologies used**: Python, Machine Learning

Publications

- Best, M., Kitamura, A., Collins, B., and Kimber, M., "Conjugate heat transfer with heat generation in both solid and fluid domains," 17th International Heat Transfer Conference, August 14-18, 2023, Cape Town, South Africa.

Technical Skills

- **Programming:** Python, C++, CMake, JSON, HDF5
- **Tools & OS:** GitHub, Linux, Finite Element Analysis, Computational Fluid Dynamics, Computer Aided Design
- **Libraries/Frameworks:** Numpy, Scipy, Scikit-learn, pytest