# Austin Aguilar

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## EDUCATION

**Bachelor of Science in Mechanical Engineering Minor in Computer Science**          **Memphis, TN**
*The University of Memphis*                                                                                              *2019 - 2023*
- Organizations: Helen Hardin Honors Program, American Institute of Aeronautics and Astronautics (AIAA)
- Awards: Graduated Magna Cum Laude with University Honors, Dean's Scholarship (2019-2023), Dean's List

## EXPERIENCE

**Software Development Intern**                                                                                          **Oakridge, TN**
*Oak Ridge National Laboratory*                                           *May 2023 – July 2023; January 2024 - Present*
- Participated in the Student Undergraduate Laboratory Internship (SULI) program in the Summer of 2023, and the Education Collaboration Program (ECO) during the Spring of 2024.
- Developed a collaborative filtering recommendation pipeline using HuggingFace language models and a Nearest Neighbors classifier.
- Constructed a Python and PostgreSQL data pipeline to streamline feature deployment with FastAPI Python web development framework.

**Software Development Intern**                                                                                     **Calgary, AB (Remote)**
*ITP Metrics*                                                                                                        *August 2023 – January 2024*
- Assisting in the development of a full-stack psychology survey web application using the MERN stack.
- Utilizing agile development tools such as Jira to delegate tasks and efficiently develop the project
- Gaining experience with software engineering best practices to produce manageable and reusable code.

**Undergraduate Research Assistant**                                                                                    **Memphis, TN**
*The University of Memphis*                                                                      *September 2022 – December 2023*
- Wrote and presented a paper at the 2023 AIAA student conference discussing the applications of K-means clustering in atmospheric data sets.
- Assisting in the development of HPC scripts for turbulence model simulations.
- Researching additional Python machine learning methods to apply to atmospheric datasets and additional turbulence data.

**Packaging Engineer Intern**                                                                                           **Arlington, TN**
*Microport Orthopedics*                                                                                   *October 2021 – August 2022*
- Spearheaded experimental procedures of packaging projects by preparing and analyzing over 3000 test samples to determine material strength and sterile efficiency.
- Analyzed and created data visualizations with statistical software such as Microsoft Excel and Minitab.
- Worked closely with the Packaging Department and Engineering management to develop test methods and projects to ensure compliance with ASTM and ISTA standards.
- Collaborated with purchasing to analyze and develop potential material and cost-saving packaging configurations.

## RELEVANT COURSES

OOP and Data Structures, Database Process and Design, Discrete Math,  Design/ Analysis Algorithms, Numerical and Statistical Methods

## SKILLS

**Skills:** Python | PostGresSQL | MongoDB | Express | React | Node | JavaScript | Git | HTML | CSS | LaTeX | Jira