AIDAN KING

awk5620@psu.edu | www.linkedin.com/in/aidan-king0702 | +1-814-810-8246 | Houston, TX, 77009

EDUCATION

The Pennsylvania State University   **University Park, PA**
Candidate for Bachelor of Science in Mechanical Engineering   Expected Graduation May 2025
Minors in Engineering Design & Engineering Leadership Development   Cumulative GPA: 3.95/4.00
Dean's List Recipient (Every Semester)
Emphasis Areas: Mechanical Design, FEA and CFD analysis, Engineering Design and Analysis, Leadership Principles.

RESEARCH EXPERIENCE

Human-Centered Robotics Lab (University Park) – *Research Assistant*   *Fall 2022 – Present*
- Conducted the rapid prototyping and development of a virtual reality-enabled haptic glove within 8 months.
- I worked with a project team to employ additive manufacturing techniques, mechanical R&D skills, and ideation practices to design and 3D print all parts implemented into our team's VR glove.
- Performed a stress analysis in SolidWorks to highlight areas of high-stress concentration. Using this information, fillets were added to adjust the design to decrease the maximum stress experienced in components by up to 10%.

Queensland Orthopedic Clinic (Brisbane) – *Data Analyst*   *Summer 2020*
- Collected and tracked post-surgery patient recovery and range of motion results.
- Utilized Excel to identify trends in recovery time and range of motion progression in patients. These trends were then used to provide more accurate predictions and recommendations for recovery based on patient injuries.

Queensland Unit for Advance Shoulder Research (Brisbane) – QUT *Research Assistant*   *Summer 2020*
- 3D-Laser scanned RSA arthroplasty to make point clouds, then cleaned the point cloud data, eventually creating a virtual library of 3D models that could be used for future research within the laboratory.

INDUSTRY EXPERIENCE

Bechtel Corporation (Houston) - *Automation & Mechanical Field Engineer*   *Summer 2023*
- Provided mechanical support, repaired components, and prepared a user manual that coached craft professionals on using an autonomous staging robot, which increased staging quantities by at least 10% daily.
- Listened to craft professional's concerns to correct issues and establish a quality work environment.
- Developed a Python code that extracted geotagged information and mapped drone images taken on-site.
- Analyzed site processes and collaborated with superintendents and other field engineers to find areas where SQL codes could be implemented to track and automate quantity and quality analysis, increasing project efficiency.

Granite Construction Company (Anchorage) - *Project Estimator & Field Engineer*   *Summer 2021 & 2022*
- Performed infield quantity calculations to provide management with a daily cost and completion analysis.
- Leveraged Excel macros to complete cost reports and communicate production efficiency data.
- Estimated the cost and quantities of work required in a project by analyzing labor and material requirements.
- Evaluated previous project information, construction plans, and specifications to develop logical unit costs.

HONORS & AWARDS

Alan Thomas Scholarship & Shuman Scholarship   *Fall 2022 - Present*
- Received a $2,500 scholarship award, which aims to promote biomedical research.
- Joined the HCR Lab at Penn State, providing the opportunity to implement technical skills learned in lectures.

Rudy Scholz Award Finalist   *Spring 2022*
- Was one of sixteen finalists nominated for an award recognizing the best collegiate male rugby player.

SKILLS & ACTIVITIES

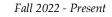**The Pennsylvania State Men's Rugby Team**   *Fall 2020 - Present*
- Was voted by teammates to be part of the leadership team, which bridged communication between coaches and players while also developing essential leadership skills that
- Performed a weekly 2-hour tutoring session for teammates centered on explaining concepts taught in STEM.

Software
- SolidWorks, Inventor, AutoCAD, MATLAB, SQL, Adobe Photoshop, Adobe Premier Pro, and Microsoft Office.