Akash Tambe

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Education

University at Buffalo, Buffalo, NY   **Aug 2016 – May 2020**

Bachelor of Science, Aerospace and Mechanical Engineering

- **Honors:** Summa Cum Laude, Advanced Honors Scholar, Dean's List Recipient
- **Organizations:** Engineering Without Borders Club Secretary, Tau Beta Pi Member
- **GPA:** 3.77/4.00

Experience

JMA Wireless, Syracuse, NY   **Jun 2020 – May 2021**

Mechanical Engineer

- Oversaw mechanical activities like electro-mechanical packaging, GD&T, and DFMA
- Determined the coefficient of friction between various rotating PCBs using an Instron
- Replaced imperial hardware with metric hardware to resolve international sourcing issues
- Delivered continual support to the other engineering teams to drive projects to completion

Mechanical Engineering Intern

- Designed sheet-metal, injection-molded, 3D-printed, and PCB parts in SolidWorks
- Determined normal-load capabilities and grip range of different rivets by using an Instron
- 3D-printed prototype tools/equipment to reduce manufacturing time
- Managed documents in LM's Enterprise PDM and purchased parts via SAP

University at Buffalo, Buffalo, NY

Teaching Assistant, Department of Mechanical and Aerospace Engineering   **Aug 2019 – May 2020**

- Tutored students in Fluid Mechanics and Heat Transfer courses
- Supervised 80+ students in weekly recitations and resolved their courses-related queries
- Held weekly office hours and tutored students one-on-one and in groups

Research Assistant, Aerodynamics and Energy Transport Laboratory   **Jun 2019 – May 2020**

- Designed and machined mounting structures to analyze bluff bodies inside a wind tunnel
- Assisted a batch of 50+ students in conducting various aerodynamic labs and experiments
- Began development on a rotating cylinder mechanism inside a water channel

Student Assistant, School of Engineering and Applied Sciences   **Jun 2018 – May 2020**

- Introduced students to university resources for professional/personal development
- Assisted engineering students with scheduling courses and university policies
- Managed schedules for 10+ engineering advisors and gave campus tours

Skills

- **Industry Knowledge:** Product Development, 3D Printing, Machining, Soldering
- **CAD/FEA:** SolidWorks, PTC Creo, ANSYS, Inventor
- **Programming:** MATLAB, LaTeX, JavaScript, Arduino, Python, Microsoft Office
- **Languages:** Fluent in English, Marathi and Hindi

Projects

JMA Wireless, Syracuse, NY

Interoperability Testing Antenna   Nov 2020 – Jan 2021

- Designed a 2-feet-long antenna used to validate vendors' Remote Electrical Tilt (RET) systems
- Changed the internal RET layout depending on vendor requirements
- Drove the project to completion and continually supported further builds to produce 10+ units

Low-Profile Omnidirectional Antenna   Oct 2020 – Dec 2020

- Developed a flat 4x4-inch omnidirectional antenna for in-building usage
- Designed injection-molded snap-fit antenna casing to ensure low visibility and ease of assembly
- 3D-printed prototypes to test and improve the snap-fits and the RF-performance

Stadium Antenna   Jul 2020 – Sep 2020

- Developed a fast-track stadium antenna using pre-existing hardware and PCBs
- Built 6 prototypes to perform fit-check and improve RF-performance
- Designed multiple sheet-metal mounting brackets based on vendor's stadium restrictions

University at Buffalo, Buffalo, NY

Aircraft Design   Jan 2020 – May 2020

- Designed an aircraft model by using aerodynamic and flight-dynamic concepts
- Optimized the aircraft wing dimensions using SolidWorks and Creo Simulate
- Crafted drawing packages, BOM, and other supporting documentation for the aircraft

Wind Turbine Analysis   Jan 2020 – May 2020

- Researched articles regarding ice-throw and shadow-flicker by wind turbines in a cold climate
- Determined the risk of wind turbines in Western New York by using pre-existing simulation model
- Recommended a minimum safety distance between the wind turbine and residential areas

La Laguna Water Sanitization   Jan 2019 – Dec 2019

- Planned a treatment system for a coliform-heavy water supply in La Laguna, Nicaragua
- Reviewed similar previously implemented sanitization projects in Central America
- Designed a catchment-box in SolidWorks which would provide rudimentary filtration brackets

Game Based Learning   Aug 2018 – Dec 2018

- Created games and interactive modules to help learn basic engineering concepts
- Developed a game demo in JavaScript for a simple mass-spring-damper system

Honors & Award

University at Buffalo, Buffalo, NY

Summa Cum Laude, School of Engineering and Applied Sciences   May 2020

- Latin Honor bestowed to students that attained a GPA of 3.75 or higher
- catalog.buffalo.edu/policies/honors.html

Advanced Honors Scholar, University Honors College   Dec 2018

- Invited to join Honors College for having outstanding academic records
- honors.buffalo.edu/advanced

Dean's List Recipient   May 2017

- Awarded to students that attained a GPA of 3.5 or higher
- Dean's List Recipient for Spring 2017, Spring 2018, Spring 2019, Spring 2020
- catalog.buffalo.edu/policies/deans_list.html