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| Current Address: | **AYODEJI BODE-OKE** | LinkedIn: Ayodeji Bode-Oke |
| 1111 Preston Ave, Apt 3C | atbodeoke.com | Email: atbodeoke@gmail.com |
| Charlottesville, VA 22903 |  | Cell: (434) 218-8639 |
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| **PROFESSIONAL** | * Forward-thinking aerospace engineer with a strong background in fluid dynamics using experiments and | |
| **SUMMARY** | computational fluid dynamics to investigate low reynolds number bio-inspired propulsion. | |
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|  | * Excellent team player and strong builder of prolific collaborations as evidenced by 11 co-authored | |
|  | publications. |  |
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|  | * Self-motivated individual with easy-integration in a multicultural environment with proven ability | |
|  | to work under pressure to high levels of accuracy and quality in a fast-paced work environment. | |
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| **EDUCATION** | **University of Virginia**, Charlottesville, VA. |  |
|  | **Ph.D**. in Mechanical and Aerospace Engineering. GPA: 3.920 | August 2019 |
|  | **M.S.** in Mechanical and Engineering. GPA: 3.920 | May 2017 |
|  | **B.S.** in Aerospace Engineering, *highest distinction*. GPA: 3.845 | May 2015 |
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| **SKILLS** | Aerodynamics, computational fluid dynamics (CFD), physics-based modeling, scientific programming, | |
|  | project management, experimental design, research, 3D modeling and prototyping, idea generation, | |
|  | oral and written communication, strong leadership, interpersonal and collaborative skills. | |
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| **TOOLBOX** | FORTRAN, MATLAB, CFD research codes, Tecplot, Maya, Solidworks, Adobe Creative Suite, | |
|  | Python, Bash, C++. | |
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| **RELEVANT** | Computational fluid dynamics, fluid mechanics, thermomechanics, computation as a research tool, | |
| **COURSEWORK** | aerodynamics, heat and mass transfer, flight vehicle dynamics. | |
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| **LANGUAGES** | Fluent in **English** and **Yoruba.** |  |
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| **RELEVANT** | **University of Virginia, Charlottesville, VA.** *Graduate Researcher,*2015-2019 | |
| **EXPERIENCE** | * Investigated the unsteady aerodynamics and bio-physics of nature’s fliers and swimmers for | |
|  | unmanned aerial/underwater vehicle design. | |
|  | * Leveraged CAD tools for reconstructing dynamic motions and deformation of natural propulsors. | |
|  | * Designed free flight experiments and performed numerical simulations using in-house CFD codes. | |
|  | * Developed codes for streamlining workflow from data collection to analysis to publication. | |
|  | * Discovered a new flight mode for additional maneuverability of flapping-wing flight and unraveled the | |
|  | techniques of force generation, use of aerodynamic mechanisms, and wing and body function. | |
|  | * Collaborated with diverse teams as part of ONR’s multi-university initiative on fast/efficient swimming. | |
|  | * Authored 11 publications and 13 professional presentations at conferences and grant review meetings. | |
|  | * Mentored and managed 5 independent study projects by undergraduate and high-school students. | |
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|  | **University of Virginia, Charlottesville VA.** *Undergraduate Researcher*, 2013-2015 | |
|  | * Investigated the airframe morphing of flying insects using high-speed cameras and 3D reconstructions. | |
|  | * Developed codes for kinematics quantification, rigid-body dynamics and single-objective optimization. | |
|  | * Presented findings in 1 publication and 2 presentations at conferences. | |
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| **CAPSTONE** | **Electric Aircraft Design,** 2014-2015 |  |
| **PROJECTS** | * Designed a four-place general aviation electric aircraft with distributed propulsion for operation in 2020. | |
|  | * Conceptualized the bio-inspired design concept and performed necessary aerodynamic calculations, | |
|  | presenting ideas in a state-of-the-art report and thesis. | |
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|  | **Spacecraft Design,** 2014-2015 |  |
|  | * Developed mission concepts and grant proposal to estimate the erosion and pollution in the Chesapeake | |
|  | Bay using a low-orbit cube 3U CubeSat. | |
|  | * Designed the communication strategy from the CubeSat in space to the ground station on earth. | |
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|  | **Technology and Society,** 2014-2015 |  |
|  | * Elucidated the impacts and implications of technological leapfrogging in sub-Saharan Africa countries | |
|  | in relation to the adoption of complex technologies from the first world (e.g., electric vehicles). | |
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| **LEADERSHIP** | **American Institute of Aeronautics and Astronautics Student Conference**, 2017 | |
| **EXPERIENCE** | * Chaired a session of undergraduate student presentations on various topics in aerospace engineering. | |
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|  | **Office of African American Affairs Peer Advisor Program,** 2014-2015 | |
|  | * Coordinated a weekly program that offered both course-specific help and life skills colloquia to boost | |
|  | performance for first-year African-American college students. | |
|  | * Managed 30 tutors and coordinated contact with colloquia speakers | |
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|  | **Sigma Gamma Tau- National Aerospace Honor Society**, 2014-2015 | |
|  | * Served as vice president of the University of Virginia chapter. | |
|  | * Recruited new inductees, coordinated tutoring sessions, and collaborated with the faculty advisor. | |
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|  | **Aerospace and Mechanical Engineering**, 2014-2015 |  |
|  | * Coordinated groups of 15 students on projects in air-breathing prolusion and aircraft design. | |
|  | * Fine-tuned group dynamics, conflict resolution, and delegation skills as a result. | |
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| **ADDITIONAL** | **University of Virginia, Charlottesville VA.** *Teaching Assistant,*2017-2018 | |
| **EXPERIENCE** | * Facilitated the learning of over 300 students through office hours and review sessions in Partial | |
|  | Differential Equations (Fall ‘17), Probability & Statistics (Spring ‘18), and Fluid Mechanics (Fall ‘18). | |
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|  | **Technische Universität Braunschweig, Germany.** *Study abroad***,**Summer 2014. | |
|  | * Collaborated with a team of 19 to design new concepts for the future of transportation for Volkswagen | |
|  | * Proposed a semi-autonomous electric bike mobility extender that interfaced with existing infrastructure. | |
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| **HONORS** | American Institute of Aeronautics and Astronautics(AIAA), **Abe Zarem award for distinguished** | |
|  | **achievement in aeronautics,** 2015 | |
|  | University of Virginia Aerospace and Mechanical Engineering, **John E. Scott award for research** | |
|  | **excellence in fluid related** **areas**, 2019 | |
|  | University of Virginia Engineering Research Symposium (UVERS), **First Place**, 2016 | |
|  | University of Virginia Aerospace and Mechanical Engineering, **Outstanding Graduate Student**, 2016 | |
|  | American Institute of Aeronautics and Astronautics (AIAA), **Member Spotlight – September 2015,** 2015 | |
|  | AIAA Region I Student conference, **Second Place – Master’s Category,** 2015 | |
|  | University of Virginia Aerospace and Mechanical Engineering, **Research Presentation Award**, 2018 | |
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