

John Kyle Cooper

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Objective	Striving to gain research experience in the field of auditory neuroscience and apply that knowledge to the engineering of hearing aids and cochlear implants in a medical industry setting.	
Education	University of Rochester , Rochester, New York	August '19
	Masters of Science in Biomedical Engineering	-May '21
	Cumulative GPA: 3.878/4.000	
	Texas A&M University , College Station, Texas	May '19
	Bachelor of Science in Biomedical Engineering, Minor in Electrical Engineering	
	Cumulative GPA: 3.428/4.000	
	Biomedical Engineering Fast-Track Program , Texas A&M University	Fall '18-Spring '19
	Study Abroad: Germany Biosciences Program, Bonn, Germany	Spring '17
	Greece Engineering Ethics, Thessaloniki, Greece	Winter '18
Teaching Experience	<i>Teaching Assistant</i> , University of Rochester , Rochester, New York	Spring '20
	Course: Biomaterials	
	<ul style="list-style-type: none">Assisted students with learning the basic concepts of biomaterials by leading lab sessions, review sessions, and weekly office hours. Underwent weekly discussion with the teaching professor to improve the teaching methods and learning environment for the students.	
Research Experience	<i>B.A.E.F. Fellow</i> , KU Leuven Leuven, Belgium	Fall '21
	PI: Dr. Tom Francart	-Fall '22
	<ul style="list-style-type: none">Awarded Belgian American Educational Foundation (B.A.E.F.) fellowship to work with the Experimental Oto-rhino-laryngology (ExpORL) lab to develop an objective measure of speech understanding for normal-hearing listeners using electroencephalography (EEG).	
	<i>Research Assistant</i> , University of Rochester , Rochester, New York	August '19
	PI: Dr. Ross Maddox	-Present
	<ul style="list-style-type: none">Serve as a lab manager by recruiting and scheduling subjects for experiments, ordering lab supplies, and assisting with the experiments of other lab members.Conduct ~70 EEG experiments for an NSF funded study aimed to investigate potential differences in processing syllabic stimuli in the auditory brainstem between musicians and non-musicians.	
	Undergraduate Research Scholars Program , Texas A&M University	August '18
	<ul style="list-style-type: none">Produced written undergraduate thesis on the application of multi-tonal complex stimuli with Optical Coherence Tomography imaging for vibrometric analyses of inner-ear structures.	-May '19
	Undergraduate Summer Research Grant , Texas A&M University	Summer '18
	<ul style="list-style-type: none">Summer research opportunity under the guidance of a faculty mentor, a postdoctoral fellow, and advanced graduate students.	
	<i>Research Assistant</i> , Texas A&M University , College Station, Texas	August '16
	PI: Dr. Brian Applegate	-May '19
Technical Skills	<ul style="list-style-type: none">Conducted research focused on understanding cochlear pathophysiology and function using picometer sensitive, spatially resolved vibrometry in the ear.	
	Biomedical Engineering Capstone , Lynntech Inc.	Fall '18
	<ul style="list-style-type: none">Worked with a group of biomedical engineers on an orthotic rehabilitation device.Tasked with documentation, 3-D modeling, construction, and programming of the device.	
	<i>Research Assistant</i> , Enmodes GmbH , Aachen, Germany	Fall '18
	<ul style="list-style-type: none">Assisted in the R&D of the Ras-Q (world's first long-term respiratory system).Modeled a prototype for presentation to the company.	
		January '17
		-May '17
Technical Skills	<ul style="list-style-type: none">Python, PyTorch (machine learning), MATLAB, R, C, Basic HTML and CSS, & LABVIEW2 years of EEG experience (Brain Vision software)SolidWorks & Blender (3-D design software)VR and Eye-tracking Technology & Unreal Engine (virtual reality engine)3D-Printing & Repetier Host Software (3-D printing applications)	

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Presentations	BMES Conference , Atlanta, Georgia	October 17-20, '18
	<ul style="list-style-type: none"> • Poster session presentation. <i>Calibration of Multi-Tonal Complex for Optical Coherence Tomography Imaging System.</i> 	
	Undergraduate Research Scholars Symposium , Texas A&M University	February 27, '19
	<ul style="list-style-type: none"> • Presented undergraduate thesis work completed through the Undergraduate Research Scholars Program. 	
	SPIE Journal Club , Texas A&M University	August, '17 –May, '19
	<ul style="list-style-type: none"> • Optical Engineering Manuscript Review with Dr. Alvin Yeh. • Presentations: <i>Scanning laser optical tomography for in toto imaging of the murine cochlea</i> by Nolte et al. (2017) & <i>Phototactic guidance of a tissue-engineered soft-robotic ray</i> by Park et al. (2016) 	
	Air Force Workshop , Texas A&M University	June 27, '18
	<ul style="list-style-type: none"> • The goal of this design experience was to provide input to Air Force Personnel to shape future research objectives. 	
	Aggies Invent , Texas A&M University	Fall '17 & Summer '18
	<ul style="list-style-type: none"> • Worked as an integral part of a team selected to compete in a 48-hour development project and shared a presentation of the prototype developed for the competition. • (Summer '18) Hearing aid technology: shifting the pitch of incoming speech to improve listener intelligibility. • (Fall '17) Orthopaedic rehabilitation device for bedridden patients. 	
Other Conferences Attended	CRASH/MASH Virtual Conference	October 16-17, '20
	<ul style="list-style-type: none"> • Joint conference focused on hearing research related to cochlear implants (CI) to bring together hearing and CI scientists to present CI-data, works in progress, or future directions. 	
	Annual Neuroscience Symposium , Texas Brain & Spine Institute	October 1, '18
	<ul style="list-style-type: none"> • Keynote lecture was given by Marc Diamond, M.D. (Director, Center for Alzheimer's and Neurodegenerative Diseases, UT Southwestern). 	
	BMES Conference , Phoenix, Arizona	October 11-14, '17
	<ul style="list-style-type: none"> • Served as volunteer for TAMU Social Event & participated in conference sessions. 	
Mentorship/Leadership	Biomedical Engineering Society (BMES) - Mentor	August, '17 -Present
	<ul style="list-style-type: none"> • Serve as a mentor for undergraduates interested in both the pursuit of a degree in Biomedical Engineering and graduate school. Attended weekly meetings and listened to speakers from different companies share their cutting edge biomedical technology, such as representatives from <i>Stryker</i> and <i>Medtronic</i>. 	
	Peer Mentor (Engineering Living and Learning Community)	Fall '16
	<ul style="list-style-type: none"> • Served as a resource to incoming freshmen engineers and plan activities for the Engineering Living and Learning Community to foster community for academics. 	
	Christian Engineer Leaders (CEL) - Committee Leader	Fall '16
	<ul style="list-style-type: none"> • Refined engineering and professional skills through leading fellow engineers. • Learned how to be faithful witnesses for Christ both in industry and in missions. 	
Professional Memberships	Association for Research in Otolaryngology (ARO) Biomedical Engineering Society (BMES) SPIE (the international society for optics and photonics) Christian Engineering Leaders (CEL)	
Honors	BME Graduate Student Teaching Assistant Award Honorable Mention	'20
	Undergraduate Research Scholar	'19
	Distinguished Student Award, College of Engineering, Texas A&M University	'17
	Phi Eta Sigma National Honor Society	'16 - Present
	National Society of Collegiate Scholars (NSCS)	'16 - Present
	High-School Valedictorian	'15
	Eagle Scout	'14