Brandon Kim
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Biomedical Engineering Graduate & soon-to-be Graduate Student

Graduated from Georgia Tech in Fall 2019. Conducted research on olfaction machines and their "smelling" abilities, and TA'd a class for one semester helping students in designing medical device prototypes. Currently learning the fundamentals of HTML web development to prepare for UX/UI design in graduate school.

Gained experience in the following areas:

Biomedical Engineering | Wireframes/ Digital Sketches | HTML Web Development (WIP) | Computer-Aided Design (CAD) | Research on Olfaction machines | Data Analysis in Excel | Programming (previously MATLAB, now HTML)

Education

GEORGIA INSTITUTE OF TECHNOLOGY – Atlanta, GA (Aug. 2015 - Dec. 2019)

Bachelor of Science in Biomedical Engineering (BS-BME), [GPA: 3.017/4.00]

Significant Educational Activities

Biomedical Engineering Capstone Team Member (Aug. 2019 – Dec. 2019) → Georgia Tech (Atlanta, GA)
- Brainstormed with 3 other people to come up with a solution to increase medication adherence
- Created a "pill locker" that stored multiple pill bottles for one patient and alerts them via LED light with programmed alarms
- Gave presentations and submitted reports detailing every step of the design process
- Sketched out the blueprints for all the major iterations of our device

Mechanical Engineering Undergraduate Research Assistant (May 2018 – end of August 2019) → Georgia Tech (Atlanta, GA)
- Conducted research for Mechanical Engineering Professor Dr. David Hu
- Was included in a poster that got **2nd place out of 200+ entrants** at the 236th ECS Meeting 2019 in Atlanta, GA
- Tested different sniffing frequencies of various liquid chemicals with a provided olfaction machine
- Analyzed machine response data in large Excel files with graphs and data labels
- Compiled raw machine data in well-organized folders with appropriate labels for each day and trial number
- Created MATLAB program to quickly analyze raw data's average amplitude response
- Submitted reports and gave presentations detailing my work at semesterly research symposiums

Junior TA – Intro to Biomedical Engineering Design II (Aug. 2019 – Dec. 2019) → Georgia Tech (Atlanta, GA)
- Assisted sophomore students with the class and worked with a group of TAs and the professor to ensure their success
- Graded students' SolidWorks assignments, notebooks, and other projects
- Tracked students' class attendance every day

Process Book – Intro to Biomedical Engineering Design II (Jan. 2017 – May 2017)

Created a process book with my BMED2310 group detailing our work on a prosthetic kitchen utensil device
- https://drive.google.com/open?id=1I6ZGxJ9MzXSQ7QgtnmHpe_0qIFyDJcuq
- My role in this team was mainly drawing up the sketches for each iteration of our product

Extracurricular Activities

GT BME Robotics Club Member (January 2017-Present) → Georgia Tech (Atlanta, GA)
- (Spring 2018 & Fall 2018) Design Team – Team Poof – assisted in CAD-ing and designing physical parts for the robot Poof; intended for day-cares to help children
- (Fall 2017) Design Team – PE2 (Elliptical & Pre-Eclampsia) Team → later renamed Team Poof - assisted in modifying an elliptical device (mentioned above) as well as in research & development of a pre-eclampsia detecting device; later switched to learning basics of Arduino coding for robot arms
- (Spring 2017) Design Team – Spinal Cord Injuries – assisted in modifying an elliptical device designed to help paralyzed people or people with non-functioning muscles regain use of their muscles

Pediatric Technology Business Club Member (August 2017-Present) → Georgia Tech (Atlanta, GA)
- Secretary – sent out reminder emails for meeting times & recorded minutes for monthly meetings

Pioneer Newsletter Club Member (August 2017-Present) → Georgia Tech (Atlanta, GA)
- Interviewer & Writer – conducted interviews and wrote articles for prominent BME-related faculty and students

Technical Skills

Microsoft Office (Word, PowerPoint, advanced Excel) | Olfaction Machine usage & Data Analysis | Digital Wireframe/Blueprints sketching | MATLAB programming | HTML Web Development (WIP)

Additional Experience

Tech Square Sandbox Academy (May-July 2017) → The Garage, Georgia Tech (Atlanta, GA)
- Participated in a summer-camp program that taught me how to be a better professional, including networking with other people in-person and online, as well as learning how to advertise yourself on sites like LinkedIn.
- Created some wireframes/sketches of a potential app or website for the Garage and its programs and showed them to other Sandbox Academy participants – they were highly impressed with the creativity on display.
  - Motivated me to keep developing my UI sketching skills in order to get better at medical device design and/or digital interface design.