

# CHANDLER W. WOO

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## SUMMARY

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- Driven, self-starting biomedical engineer seeking further experience in sales & marketing products that will have a significant impact in the medical device industry
- Quick ability to adapt in professional and social exchanges, guided by a strong attention to detail and willingness to seek new challenges
- Skilled using MATLAB for mathematical and statistical analysis, AutoCAD, Python, FEBio, HTML5, JavaScript, and Office

## EDUCATION

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### RICE UNIVERSITY

*Masters of Bioengineering, Global Medical Innovation (GMI) Tract*

**HOUSTON, TX**

*Expected May 2018*

- Focus of medical device innovation and implementation within emerging-markets, with two (2) primary projects that reflect both the design and applications phases of medical device development

### UNIVERSITY OF ROCHESTER

*Bachelor of Science in Biomedical Engineering, Concentration in Biomechanics*

**ROCHESTER, NY**

*May 2017*

GPA: 3.55/4.0

- Executive Board Member; Upperclassmen Hall Council, Sigma Chi Fraternity, Newman Catholic Community
- Member of Solar Splash, Engineers without Borders, Biomedical Engineering Society, Ultimate Frisbee Club Team
- Teaching Assistant: Introduction to Biomedical Engineering; Human Anatomy; Signals, Systems, and Imaging
- Awards: Eagle Scout, Dean's Scholarship Recipient, Dean's List (4 semesters), Graduated with High Distinction

## WORK EXPERIENCE

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### FANNIN INNOVATION STUDIO

*Engineering Intern*

**HOUSTON, TX**

*October 2017 - Present*

- Conducting market analysis and developing business models for medical device portfolio companies, as well as conducting IP assessments and recommendations for future portfolio products
- Developing test methods and protocols for animal studies with Fannin's medical device product surrounding pediatric ureteral stents

### BOSTON SCIENTIFIC CORPORATION

*R&D Neuromodulation Intern*

**HEREDIA, COSTA RICA**

*July 2017 - August 2017*

- Developed computational model of BSC's battery for their implantable pulse generator (IPG) to analyze factors that contribute to efficiency of energy transfer between the charger and the IPG
- Generated a portfolio of future device iterations and test platforms to analyze factors that aim to increase charging efficiency

### BUCKLEY LAB, URMIC

*Undergraduate Research Assistant*

**ROCHESTER, NY**

*September 2015 - May 2017*

- Utilized confocal microscopy to analyze force distributions of murine femoral condyles under mechanical loading
- Developed MATLAB code to directly measure cartilage strain under different loading conditions and use inverse finite element analysis to obtain material properties and boundary conditions of murine cartilage
- Kotelsky, A., **Woo, C.W.**, Delgadillo, L.F., Richards, M.S., Buckley, M.R. (2017) "An Alternative Method to Characterize the Quasi-Static, Non-linear Material Properties of Murine Articular Cartilage." *J. Biomech Eng.* BIO-16-1515. (In Print).

### IDEALAB

*Summer Engineering Intern*

**PASADENA, CA**

*Summer 2014, 2015*

- Operated machine shop tools and SolidWorks to devise novel product prototypes
- Self-directed projects include, but not limited to, optimizing angles of 100 mirror array to centralize light on single point for solar tower design consideration; designing heat retentive system for effective water desalination

## SELECTED PROJECTS

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- **Proteus Medical (Senior Capstone Project):** Developed novel veterinary endoscopic retrieval device to improve foreign body retrieval while reducing cost for the veterinarian. Designed prototypes for DFMA in SolidWorks and developed business plan for competition
  - \* 1<sup>st</sup> Place: Mark Ain Business Model Competition; 2<sup>nd</sup> Place: Charles and Janet Forbes Entrepreneurial Competition
- **Artificial Touch (Circuits Project):** Designed an artificial touch sensor, suitable for a Raptor 3-D printed hand, to sense pressure at the "fingertip" and deliver a signal to the hand. Analyzed circuit design using OrCAD to calculate appropriate frequency response for a Pacinian Corpuscle; crafted final design onto a circuit board using general design considerations
- **Child Hearing Test (MATLAB Project):** Directed a 3-person team to design a hearing test for young children in MATLAB. Identified considerations for project such as maintaining the child's interest with a reward system as well as determining the subject's average threshold through both 2-down-1-up and reversal algorithms