

Heath Rutledge-Jukes

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(618) 315-3094

Education

Florida Southern College, Lakeland, FL 2017-2020
Bachelor of Science in Psychology, Minors: Chemistry, Neuroscience, and Biology

Kaskaskia College, Centralia, IL 2016-2017
Associates Degree in Arts/Science

Awards, Scholarships, and Grants

2017-2020 Tuition Scholarship, *Florida Southern College*
2019 Research Practicum Excellence Award, *FSC Psychology Department*
2017- 2019 President's Scholar List (4.0 semester GPA with 16 or more credit hours), *FSC*
2018 Freshman of the Year Award, *FSC Psychology Department*
2016-2017 Dean's Scholar List (4.0 semester GPA), *Kaskaskia College*
2016-2017 Kaskaskia Education Scholarship, *Kaskaskia College*

Professional Experience and Employment

2021-Present Centaur Labs, *Product Associate*
2020-Present King of the Curve, *Founder & President*
2020-2021 Medical Scribe: Family Med, Nephrology, & Pulmonology, *Medical Scribing Solutions College*
2018-2020 Behavioral Neuroscience Teaching Assistant, *Florida Southern College*
2018- 2020 Tech Buddy: On-campus Tech Support, *Florida Southern College*
2018-2020 Tutor in Genetics, General and Organic Chemistry, Biostatistics, *Florida Southern*
2017-2019 Lifeguard, *YMCA of Central Florida*
2015-2017 Swim Team Coach, *Centralia Recreation Complex*
2015-2017 Lifeguard, *Centralia Recreation Complex*

Paid Internships

Dr. Keith Berend Summer Internship, *Joint Implant Surgeons, New Albany, OH* 2019

- Shadowed some of the nation's top orthopedic surgeons in various subspecialties within orthopedics, in over 100 hours of surgeries including total hip arthroplasties, total/partial knee arthroplasties, shoulder arthroplasties, and arthroscopic surgeries with renowned orthopedic surgeon Dr. Keith Bernend, as well as Dr. Adolph Lombardi, Dr. David Crawford, Dr. Jason Hurst, and Dr. Michael Morris.
- Performed preoperative and post-operative interviews with patients
- Observed and assisted with surgical procedures under supervision, with hands-on experience at the busiest knee replacement clinic in the nation
- Worked with cadavers to test new joint replacement equipment, meanwhile developing personal technical skills with countless hours practicing total hip and knee arthroplasties in the lab
- Worked closely with Dr. David Crawford on study design and implementation from IRB to the manuscript
- Developed rapport and collected research data from patients on outcomes of their surgeries
- Contributed to a retrospective analysis on outcomes of triple-wedge stem design in hip arthroplasties, published in the *Journal of Surgical Technology*

Volunteer Experience and Service

2019-2020 The Gift of Swimming: Volunteer Swim Instructor, *Southwest Aquatics*
2017-2020 Free Clinic Volunteer, *Lakeland Volunteers in Medicine*
2017-2020 ED Physician Support Volunteer, *Orlando Health Central Hospital*
2017-2020 Liaison for Homeless Coalition of Polk County, *FSC Sandwich Ministries*
2017-2019 Nursing Home Assistant, *Centralia Manor*
2015-2017 Volunteer Swim Instructor, *Centralia Recreation Complex*

Personal Projects: App Development

MCAT: King of the Curve, *Co-Founder & President*

2020-Present

- Developed and published a mobile application that has garnered over 10,000 downloads
 - Available on the Apple AppStore: <https://apps.apple.com/us/app/mcat-king-of-the-curve/id1534662918>
- Self-designed and programmed an active, affordable learning tool for MCAT preparations, in an effort to provide affordable, organized, and high-yield content to learners across the world
- Worked closely with a team of programmers, domestic and international
- Wrote over 5000 questions and explanations spanning multiple disciplines including chemistry, biochemistry, biology, physics, psychological and social sciences
- Led and participated in negotiations for investment and drafted plans for further development
- Media: <https://www.flsouthern.edu/news/recent/2020/alumni/fsc-connections-help-bring-low-cost-mcat-study-app.aspx>

Predictive Orthopedics: Should You Need Knee Surgery?, *Developer & Co-owner*

2021-Present

- Developed a mobile application to house an algorithm that detects the percentage likelihood that someone needs a knee replacement surgery
 - Not yet commercially available
 - Used in practice at JIS Orthopedics in New Albany, OH; preliminary data supports accuracy/alignment with physician recommendations
- Created the UI/UX and connected this to the machine-learning algorithm
- Linked the application from a Streamlit service to a mobile application interface and setting up an Amazon Web Service
- As it is not commercial, there is currently no link or images I can provide.

Research Interests

Mobile Applications and Healthcare
Data-Driven Analytics in Healthcare
Machine-Learning Algorithms
Psychology
Orthopedics
Public Health & Law

Research Experience

Clinical Researcher, Joint Implant Surgeons

2019-present

- After a successful summer internship, I was asked back to the surgery center to assist with numerous research projects under the guidance of Dr. David Crawford
- Performed data collection and wrote the manuscript for a retrospective analysis on postoperative outcomes after triple-wedge broach design in total hip arthroplasties, which was published in the *Journal of Surgical Technology*
- Designed/conducted a systematic review and analyzed data through plot visualizations for efficacy comparisons between duloxetine and celecoxib in osteoarthritis, which was submitted for publication
- Analyzed outcomes after complex primary and revision total hip arthroplasties using a highly porous Ti6Al4V acetabular component; an ongoing project, pending further funding

Clinical Research Assistant, FSC Department of Psychology

2017-present

- Under the guidance of Dr. Patrick Smith and Dr. Matthew D'Allessandro, I developed my foundation and passion for clinical research in the Department of Psychology.
- I designed several studies and saw them to completion, including IRB approvals, personal analysis of results with SPSS, preparation of abstracts and manuscripts, and poster presentations at both local meetings and national conferences. Please see a list of my projects below:
 - *Memory: The effects of meme usage of understanding neuroscience content.*
 - *Reading comprehension in monolinguals vs. bilinguals.*

- *How you play the game: Pedagogy within cancer-based video games.*
- *Systematic review and meta-analysis of lisdexamfetamine*
- *The apocalypse of dementia: Metaphor effectiveness in neuroscience pedagogy*
- *Hunger for games: Video game influences on understanding of cancer.*

Publications

Crawford DA, **Rutledge-Jukes H**, Berend KR, Morris MJ. Does a Triple-Wedge, Broach-Only Stem Design Reduce Early Postoperative Fracture in Anterior Total Hip Arthroplasty? *Surgical Technology International*. 2019;35:386-390.

Carter LM, Goodmon LB, Urs M, **Rutledge-Jukes H**. The effects of victim gender identity, juror gender, and judicial instructions on victim-blaming, crime severity ratings, and verdicts in sexual assault trials. *Accepted to the Journal of Homosexuality*

Pending Manuscripts

Rutledge-Jukes, H, Gonzalez, M, Shibilski, K, Martin, J, Izadi, L, Smith, P, & D'Alessandro, M. "Memory": The effects of meme usage of understanding neuroscience content. *Currently In-Review*.

Rutledge-Jukes, H., McIntosh, A. Urs, M., Prendergast, L., Andrianni, N., Lynch, J. The efficacy of lisdexamfetamine in the treatment of ADHD in adults and children: a meta-analysis. *Currently In-Review*.

Crawford DA, **Rutledge-Jukes, H**. Early Results of a Highly Porous Ti6Al4V Acetabular Component in Complex Primary and Revision Total Hip Arthroplasty. *Manuscript in Progress*.

Presentations

Rutledge-Jukes, H., Gonzalez, M., Shibilski, K., Martin, J., Izadi, L., Smith, P., & D'Alessandro, M. (2021, April). "Memory": The effects of meme usage of understanding neuroscience content. Presented at the Southeastern Psychological Association Virtual Meeting.

Rutledge-Jukes, H., Martin, J., Gonzalez, M., Moon, B, & Smith, P. (2021, April). "How you play the game: Pedagogy within cancer-based video games. Presented at the Southeastern Psychological Association Virtual Meeting.

Rutledge-Jukes, H., Gonzalez, M., Shibilski, K., Martin, J., Izadi, L., Smith, P., & D'Alessandro, M. (2020, April). "Memory": The effects of meme usage of understanding neuroscience content. Submitted to the Southeastern Psychological Association Annual Conference, New Orleans, LA.

Rutledge-Jukes, H., Martin, J., Gonzalez, M., Moon, B, & Smith, P. (2020, April). "How you play the game: Pedagogy within cancer-based video games. Submitted to the Southeastern Psychological Association Annual Conference, New Orleans, LA.

Elgrini, S., **Rutledge-Jukes, H.**, Perkins, Z., McIntosh, A., & Law, C. (2020, April). *Reading comprehension in monolinguals vs. bilinguals*. Submitted to the Southeastern Psychological Association Annual Conference, New Orleans, LA.

Howard, J. R., Kindell, C. A., **Rutledge-Jukes, H.**, & Smith, P. L. (2019, March). *The apocalypse of dementia: Metaphor effectiveness in neuroscience pedagogy*. Submitted to the Southeastern Psychological Association Annual Conference, Jacksonville, FL

Smith, P. L., Howard, J. R., Lowe, K., Martin, J., **Rutledge-Jukes, H.**, Gonzales, M., & Goodmon, L. B. (2019, March). "Hunger for games": Video game influences on understanding of cancer. Presented at the Southeastern Psychological Association Annual Conference, Jacksonville, FL.

Professional Affiliations and Organizations

2019-Present Psi Chi Psychology Honor Society, Member

2019-Present Psychology Pre-Professional Program, *Selected Member*
2018-Present Southeastern Psychological Association, *Student Affiliate*
2017-Present Alpha Epsilon Delta Honor Society, *Member*
2018-2020 FSC Psychology Club, *Active Member*
2017-2020 Sandwich Ministries, *Vice President*

Certifications

Collaborative Institutional Training Initiative Certificate, *JIS Orthopedics* 2019
Collaborative Institutional Training Initiative Certificate, *Florida Southern College* 2017
Lifeguard Certification: AED and CPR, *America Red Cross* 2017

Special Skills and Competencies

Advanced Proficiency:

Microsoft Office • SONA Systems (Psychology Research Participation System) • Minitab
SPSS • Meta-analysis Essentials • Meta-analysis Insight • Prometa3 • Webflow • Amplitude • Chartio • 3D
Slicer • ITK Snap • MySQL

Intermediate Proficiency:

Wixsite • XCode (UI Storyboarding) • Flutter • Kotlin • Reviewer Manager (RevMan)
R Studio • Graphpad • Qualtrics

Hobbies & Interests

Swimming: Competitive, YMCA Swim Club in Toledo, OH, and intramural at Florida Southern College
Baking/Cooking: Specialty in Crème brûlée, Flamiche, and other French and European cuisines
Horseback riding: Western riding on the family farm, rodeo competitions in high school