

# Jack Kaplan

Biomedical Engineering Student | Biomaterials • Research • Device Design

[jackkaplan765@gmail.com](mailto:jackkaplan765@gmail.com)

[linkedin.com/in/jack-kaplan-98449b211](https://www.linkedin.com/in/jack-kaplan-98449b211)

(646) 612-5864

## EDUCATION

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**UNIVERSITY OF FLORIDA | Herbert Wertheim College of Engineering, Gainesville, FL** **Expected 2026**

Bachelor of Science in Biomedical Engineering | GPA: 3.55/4.00 | Dean's List

## EXPERIENCE

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**MIMOTYPE TECHNOLOGIES GMBH | Research & Development Intern, Berlin, Germany** **June 2025 – Aug 2025**

- Managed multiple concurrent R&D projects, creating workflows and tracking progress using Miro.
- Engineered protein–polymer and protein–biopolymer composites for optical and biomedical applications.
- Developed collagen- and silk-based scaffolds and films with embedded fluorescent proteins for cell growth and degradation monitoring.
- Designed a comprehensive roadmap for a recombinant collagen initiative, outlining workflows, project phases, and partner responsibilities to support its relaunch.
- Led demonstration of an AI-driven workflow tool to support product development.

**UNIVERSITY OF FLORIDA | Senior Design Team Member, Gainesville, FL** **Aug 2025 – Present**

- Working with a clinical industry sponsor to develop a medical device that streamlines bursal tissue resection and reimplantation during rotator cuff augmentation surgery.
- Contributing to CAD development, design iteration, and prototyping to evaluate feasibility and surgeon usability.
- Applying design controls including user needs, metrics/specifications, risk analysis, and preliminary verification planning.
- Integrated cadaver-lab insights on workflow and ergonomics to refine device usability and inform design decisions.

**UNIVERSITY OF FLORIDA | Research Assistant, Gainesville, FL** **Jan 2025 – Jan 2026**

- Applied Python-based deep learning models to process and segment medical imaging datasets (MRI, CT).
- Implemented AI-based feature extraction and data augmentation to improve diagnostic image clarity.

**CAMP COUNSELOR (VARIOUS CAMPS) | NJ |** **Summers 2022 – 2024**

- Supervised and mentored youth (ages 2–18), including children with special needs, fostering inclusive social environments.
- Led activity planning, safety supervision, and communication among staff and parents.

## COLLEGIATE INVOLVEMENT

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**GENERATIONAL RELIEF IN PROSTHETICS (GRiP) | Exo Glove/Marketing Team, Gainesville, FL** **Jan 2023 – Sept 2024**

- Created 3D-printed devices that enable people with hand paralysis to grasp various objects for Hands to Love, an organization that provides camp for children to use prosthetics.
- Created models and designs of prosthetic devices using SolidWorks application.

**B.MENTORS | Mentor, Gainesville, FL** **Oct 2024 – May 2025**

- Mentored younger biomedical engineering students to provide guidance for coursework, study abroad, building connections, and getting involved in extracurriculars.

**UNIVERSITY OF FLORIDA | Junior Design, Gainesville, FL** **Jan 2024 – May 2024**

- Developed a CAD model and concept for an oral clamp to improve interstitial brachytherapy treatment.
- Developed a CAD model and concept for a unique guardian helmet meant to reduce concussion rates in hockey players.

## LEADERSHIP

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**PI KAPPA ALPHA FRATERNITY | Fraternity Leader Educator/Member, Gainesville, FL** **Sept 2022 – Present**

- Created mentorship program that aligned new members and current members by major.
- Created study hours program for new members, assigning them advisors to aid their GPA.
- Aid fraternal members in balancing academics, social life, and extracurriculars.
- Participates in events to raise money toward Chomp Cancer and Dance Marathon.

## SKILLS SUMMARY

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**SolidWorks (CSWA Certified):** Part & assembly modeling, motion studies, and finite element analysis for medical device design.

**MATLAB & Python:** Data processing, visualization, and algorithmic modeling for biomedical signal analysis.

**Software:** Microsoft Office Suite, Adobe (Photoshop, Illustrator), CapCut, Canva, Miro.