# BENJAMIN TIGNOR

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## EDUCATION

**Georgia Institute of Technology – Atlanta, GA, May 2023**
Candidate for BS in Biomedical Engineering, GPA 3.96

**South Lakes High School – Reston, VA, June 2019**
Advanced Diploma, 42 college credit hours received
GPA 4.67/4.0

## SUMMARY

I am passionate and skilled in biomedical engineering, leadership, and public speaking. I have held positions ranging from leading teams and conducting research to serving in public office. Through these experiences I have gained both technical and soft skill sets critical to success in the engineering and business world.

## PROFESSIONAL AND ENGINEERING EXPERIENCE

**Georgia Institute of Technology**
Undergraduate Research Assistant | May 2020 – Present | Atlanta, GA

- Co-authored paper
- Computational modeling experience in R with PCA, PLSDA, PLSR, TSNE, UMAP, and correlation analysis techniques.
- In Lab working with HMSC's performing seeding, lifting, and low temperature storing techniques.

**Fairfax County Public Schools**
Board Member, Student Representative | July 2018 to July 2019 | Fairfax, VA

- Board member co-managing $3 billion annual county budget
- School Board Student Representative directly to the 187,000 students within Fairfax County Public Schools, worked 20-30 hours a week: a total of 540 unpaid hours overtime
- Served as an active member of the school board, influencing policies and legislation on key issues such as school safety, mental health, and inclusivity within our schools
- Traveled nationally to conferences as both a speaker and an attendee

**Brainlab –** Medical technology company that develops solutions for image guided surgery and digital operating rooms
Project Engineer, R&D | June 2018 to July 2018 | Munich, Germany

- Oversaw managing/designating projects and responsibilities to all interns and temporary employees within R&D
- Designed and constructed isolation chamber for calibration of surgical navigation system prototype
- Designed technique for mounting semi-opaque film 1mm +/- 100µm for vector positioning reference markers Custom
- Developed and built a 3-axis rotational mounting system for passive IR measurement system
- Managed $2,000 budget in planning of corporate retreat

**Brainlab –** Medical technology company that develops solutions for image guided surgery and digital operating rooms
Temporary Employee, R&D | June 2017 to July 2017 | Munich, Germany

- Designed, constructed, and implemented a portable, compact surgical aid assistant demo product for US sales representatives, in use in field today

## ACADEMIC PROJECTS/RESEARCH

**Biomaterial encapsulation of human mesenchymal stromal cells modulates paracrine signaling response and enhances efficacy for treatment of established OA**
Co-authored Study | August 2020

- Responsible for computational modeling of MicroCT and Luminex data using PCA and PLSDA analysis

**The Effects of Concentrations of Immobilized Yeast Within 500µl Alginate Beads on the Varied Efficiency of catalyzed Fermentation**
IB Biology HL Internal Assessment | December 2018

- Discovered optimal cost vs. efficiency enzyme concentration, allowing enzyme immobilization to become monetarily accessible to new businesses/start ups
- Regional Science Fair 1st Place in Biomedical Engineering and Grand Prize Nominee 2018
- State Science Fair Patent and Trademark Office Society 1st Place Biomedical Engineering