

# Abraham Alkhatib

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## EDUCATION

### University of Illinois at Urbana-Champaign

Expected 05/2025

- Bachelor of Science, Bioengineering
- Minor:** Computer Science
- Awards:** CP & MW Davis Scholarship, James Scholar Honors, Dean's List, Outstanding Freshman Exhibit
- Technical Skills:** Python, PowerBI, SQL, MATLAB, Swift, JavaScript, C++, Advanced Excel, AutoCAD

GPA: 3.70/4.00

### University of Pennsylvania Carey Law School

Completed 08/2024

- Certificate in Regulatory Compliance Specialization** with a focus on privacy law and data protection

## EXPERIENCE

### AbbVie | *Emerging Technology Analyst*

01/2024 – 08/2024

- Analyzed international regulations and privacy law developments, identifying regulatory compliance trends in Artificial Intelligence to aid R&D in building a successful AI TRiSM framework
- Conducted organization-wide internal consulting, data analytics, and market research, working 1-on-1 with software engineers and research scientists to identify investment areas in emerging technologies
- Performed extensive primary and secondary research on the digital pathology industry, reviewing over 20 vendors and delivering strategic insights on upcoming technological trends around spatial transcriptomics
- Pitched leadership on a potential Microsoft-first solution for clinical trial data, eliminating unnecessary tasks for end users while ensuring a chain of custody for all collected data

### Wake Forest School of Medicine | *Bioinformatics Intern*

05/2023 – 08/2023

- Embedded a cardiovascular disease prediction AI model on a mobile application using TensorFlow-Lite, improved AI inference time by over 93% from previous generations
- Created a cox-regression model to account for time-to-event data to create a more comprehensive risk score
- Optimized the risk prediction pipeline for edge devices and decreased ECG processing time to under 25ms
- Improved the interoperability of the research application to power a suite of AI-based prediction models

### Biomedical Engineering Society | *Technical Director*

08/2022 – 05/2024

- Increased participation by 15% across projects, making BMES the largest bioengineering student organization
- Mentored members to win *Outstanding Undergraduate Research* at EOH 2024, world's largest collegiate STEM fair
- Led biweekly workshops prioritizing exposure and skill development for underclassmen, increasing bioengineering project readiness by over 75%, as measured by pre- and post-workshop surveys
- Coordinated communication between college administration and sub-teams to ensure budget compliance

## LEADERSHIP

### Bromley Hall | *Residential Advisor*

01/2024 – Present

- Coordinated floor events that fostered inclusivity to assist 57 incoming freshmen in transitioning to campus
- Held open-door hours where I counseled and advised first-year students on academic and personal questions
- Served as a peer mentor for residents, balancing leadership responsibilities with collegial relationships

### Outdoor Adventures Club | *Executive Board Member*

05/2022 – Present

- Spearheaded complex logistical operations, including equipment procurement, transportation, and route details for three weeklong expeditions to U.S. national forests, parks, and wilderness areas
- Adeptly resolved conflicts when unexpected problems arose by maintaining a goal-oriented focus on safety
- Documented trip progress and outcomes to share with the greater University of Illinois community

### Grainger College of Engineering | *Undergraduate Course Assistant*

01/2024 – Present

- Taught students how complex biological systems can be modeled with simple circuits
- Worked closely with the course professor to increase student engagement by facilitating in-class activities
- Addressed gaps in student understanding by leading after-class workshops targeted at complex topics

## PROJECTS

### Heart Rate Variability Screener:

- Designed a wearable monitor to acquire and filter EKG signals to detect HR variability during exercise
- Utilized innovative physical and digital filtering techniques such as FFT and wavelet denoising

### Anesthetic Infusion Controller:

- Created an infusion pump controller to maintain adequate anesthesia depth for surgical patients
- Achieved exceptional scores in simulation testing for patients across a range of drug sensitivities ( $\pm 10\%$ )