This summer, I will be working as a **Software Engineering Intern at A5it**, a company focused on **developing scalable and high-performance software and hardware solutions**. My role will involve **building, testing, and optimizing backend systems**, an area that directly connects to my long-term goal: **becoming a backend engineer specializing in scalability and system efficiency**.

A major challenge in software is **ensuring systems perform efficiently as they grow**. A website or app that works fine for 100 users might crash when 10,000 people try to use it at once. Companies like A5it solve this by designing **systems that handle more users without slowing down or breaking**. This is exactly what I will be working on—**making software faster, more reliable, and better suited for real-world use**.

While I have studied **data structures, algorithms, and system design at Vanderbilt**, the real challenge is applying that knowledge in a professional setting. At **CloudQuish LLC and JumboTaxes**, I worked on **optimizing backend performance, improving database efficiency, and securing user authentication**. But this will be my first time working on **live production systems**, where small mistakes have real consequences. That level of responsibility will push me to grow as an engineer.

Beyond technical skills, this internship will help me **understand how large engineering teams operate**. Writing code in a classroom is different from working in an environment where **decisions must be discussed, tested, and reviewed before deployment**. At A5it, I will participate in **team standups, code reviews, and real-time problem-solving sessions** with senior engineers. This experience will help me develop as a professional who can **collaborate effectively and contribute meaningfully**.

A key reason I am excited about this internship is the opportunity to **observe A5it's growth firsthand**. As someone interested in **technology entrepreneurship**, I want to understand what it takes to **scale a tech company from both an engineering and business perspective**. A5it is in a crucial growth phase, and being part of this journey will give me **direct insight into how companies build their technological backbone, adapt to challenges, and innovate to stay competitive**. This experience will be invaluable when I eventually start my own tech venture.

However, the biggest challenge I face is that this internship is **unpaid**. Covering housing, transportation, and daily expenses for ten weeks presents a significant financial barrier. Without support, I would need to take on additional work, which would **limit my ability to focus on projects, attend networking events, and fully immerse myself in the experience**. The **Levy Internship Fund would remove this barrier**, allowing me to take full advantage of this opportunity.

More than just a summer experience, this internship is a **career-defining moment**. A5it has stated that **high-performing interns may receive full-time offers**, making this a direct stepping stone toward my future in backend engineering. With the support of the **Levy Internship Fund**, I can dedicate myself entirely to learning, growing, and contributing.