

Madison Vanderbilt
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EDUCATION

The University of Chicago

Bachelor of Science Molecular Engineering – Chemical Engineering Track, Minor Computer Science

Chicago, IL

Expected June 2027

Honors: Educators Award (2023 – Present)

Latin School of Chicago

High School Diploma

Chicago, IL

June 2023

Honors: Erasmus Society (2022 - 2023)

RELEVANT COURSES

- Comprehensive General Chemistry I-II-III
- Organic Chemistry I
- Introduction to Computer Science I-II
- Physics I
- Elem Functions and Calculus I-II-III

EXPIREANCE

BASF Coatings – General Motors Group

INROADS Intern

Southfield, MI

May 2024 – Present

- Formulated and tested GM automotive paint coatings, analyzing durability through UV transmittance, adhesion, and gravel simulation testing, resulting in the identification of 3 poor adhesion pigments.
- Established new paint formulation guidelines for 3 pigments adopted by the team for future automotive lines.
- Presented experimental findings bi-weekly to supervisors and team members, fostering data-driven decision-making.
- Collaborated with a team of 10 on color projects and actively contributed to weekly safety and project update meetings.

RESEARCH

University of Chicago – AIR Lab

Undergraduate Researcher

Chicago, IL

March 2024 – Present

- Conducted over 20 interviews and led 2 co-design workshops with community members to develop a text-based app addressing environmental hazards, such as flood warnings and air quality alerts.
- Design and code the app's front end features using JavaScript to serve over 500 users in testing phases.
- Weekly adapt app designs based on community feedback, ensuring accessibility for under-resourced neighborhoods.

LEADERSHIP

University of Chicago

National Society of Black Engineers (NSBE), Financial Chair

Chicago, IL

April 2024 – Present

- Coordinate and manage funding for engineering-related events at regional and national levels through communications with 10+ local and national sponsors and inform NSBE members of engineering opportunities, benefiting over 50 chapter members.
- Arranged first annual NSBE bake sale by coordinating participation from 4+ NSBE board member and raising over \$50 in profits for 2-hour long event.

University of Chicago

Interhouse Council, President

Chicago, IL

October 2023 – Present

- Directed weekly meetings for 48 residential communities, gathering feedback and spearheading housing, dining, and philanthropic initiatives.
- Organized 3 tri-quarterly campus-wide events, including “Pajamapalooza” and “Random Acts of Kindness Day,” engaging over 1,000 participants annually.
- Launched the Council's first website, streamlining communication for 50+ representatives and improving meeting attendance by over 200%.

VOLUNTEERING

Tech Savvy Friends

Vice President

Chicago, IL

October 2023 – Present

- Provide 1 on 1 tech assistance to senior citizens of the Hyde Park Village Community bi-monthly with using technologies such as social media, email, software upgrades, and other computer applications.
- Established new partnerships with two local Chicago public libraries to expand tech assistance to more Hyde Park residents in addition to soliciting new members through creation of posters and on-person tabling.

SKILLS

Languages: English, Proficient in conversational in reading and writing Spanish

Computer: Proficient in Python, JavaScript, CSS, HTML, Microsoft Office (Word, Excel, Outlook), Google (Sheets, Docs, Drive)

