

Zack Edds

2285 White Oak Drive, Northbrook, IL 60062

(224) 904-8823

ZackEdds@icloud.com

<https://zackedds.github.io/portfolio/index.html>

<https://www.linkedin.com/in/zack-edds/>

Expected graduation/Bachelor's degree is May 2026. I am finishing my sophomore year at Oakton College, admitted to transfer to the **University of Illinois Urbana-Champaign** Grainger School of Engineering to major in **computer science**. **4.0 GPA**

Oakton College, Des Plaines, Illinois – Aug. 2022 to May 2024

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| <ul style="list-style-type: none">▪ C++ Computer Science I - Fall 2022▪ C++ Data Structures - Spring 2023▪ CS Objects and Algorithms - Fall 2023▪ Python based Artificial Intelligence – Spring 24 | <ul style="list-style-type: none">▪ Calculus III - Fall 2023▪ Linear Algebra - Spring 2024▪ Discrete Math - Spring 2024▪ Computer Architecture - Spring 2024 |
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Glenbrook North High School, Northbrook, Illinois – Aug. 2018 to June 2022

- **Java** - Advanced Data Structures and Algorithms, Honors – full year Aug. 2021 to June 2022
- **Java** - Computer Science A, Advanced Placement – full year, August 2020 to June 2021
- Principles of Applied Science & Technology – Project based full year course to learn the science behind technology including robotics, computer design, computer-controlled machining, and laser technology.
- Honors PLTW Engineering (Project Lead the Way) Engineering and Design

U.S. Department of Energy - Computer Science Intern - May 2023 to August 2023

Argonne National Laboratory, Lemont, IL

Worked on the AFLEET (Alternative Fuel Life-Cycle Environmental and Economic Transportation Tool) team for the carbon emissions web app and Excel model. Built interactive **Svelte front-end** for **electric vehicle charging calculator** metrics based on an **API** call to the backend for calculations. Effectively used **Git** to contribute code and fix bugs. Analyzed **SQL** database and wrote queries to build electrical rate tables. Found and notified the United States Utility Rate Database of a critical flaw within their database. Optimized the Excel model with advanced data validation drop down, EV charging algorithm, and data visualization.

LanzaJet Inc., Deerfield, IL – **Software and Finance Intern** - June 2022 to present

Started as a summer Intern, then hired to work part-time during the school year. LanzaJet is a sustainable aviation fuel company creating jet fuel from recycled waste. Built **Python** program to generate jet fuel and commodity market report with **Matplotlib** charts/graphs with data from **XML based SOAP API**, **JSON based REST API**, and **web scraping with BeautifulSoup**. Shared results weekly using automated email report pipeline created with Microsoft SharePoint and **Power Automate**.

Automated the extraction of extensive commodity information from the API metadata, writing essential parameters to a **JSON** file. Wrote an efficient **Python** program to request the parameters, then performed data analysis with a **Pandas DataFrame**. The data is now used routinely in financial models to determine market trends.

Built refinery Sample Inventory and Lab Test management tools using **MS Power Apps**. Secure input forms interface with a **Dataverse database**. Data then feeds into **AVEVA PI Vision** or can be downloaded into Excel.

Congressman Brad Schneider STEM Scholar 2019-2020

Selected to represent Glenbrook North High School in Congressman Brad Schneider's 10th Congressional District of Illinois STEM Scholar program. The program is an educational opportunity that includes visits with Congressman Brad Schneider to STEM-related businesses and facilities. We participated in tours, discussions, and hands-on learning experiences with local employers, business owners and educators to learn about STEM companies in our congressional district.

STEM Center Volunteer in Northbrook Library's Collaboratory - Maker Center - June 2018 to July 2020

Volunteer in the library's STEM Center giving tours and assisting with 3D Printing, CNC machines, laser cutter, and virtual tech classes.