# Sean Warren

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## **EDUCATION**

## **Georgia Institute of Technology**

Atlanta, GA

Bachelor of Science in Chemical and Biomolecular Engineering

May 2020

Minor: Scientific Computing and Engineering

#### PROFESSIONAL EXPERIENCE

OMP Inc.

Marietta, GA

*Technical Consultant | Software Design and Development* 

July 2020 - April 2022

- Designed internal and external tools to solve supply chain challenges in the chemical industry
  - Transformed customer requirements into technical specifications and implementation plans
  - Turned large ERP database sets into analytical and actionable products for end users
  - Simulated and optimized transport/production logistics

Binergy Scientific Inc. Atlanta, GA

*Test Engineer* | *Product Developer and Data Analyst* 

May 2019 – Jan 2020

- Developed biosensors for toxin detection in military and emergency response applications
  - Implemented device data filtering and analysis methods and an end user interface
    - Built database to store proprietary product testing and development info
- Developed anode materials and production strategies for thermal battery applications
  - Influenced use of lean-manufacturing techniques to improve manufacturing productivity by 60% through optimization of technician SOPs

### University of Illinois, Chicago/Argonne National Laboratory

Chicago, IL

*Undergraduate Researcher* | *Glusac Group* 

Jan 2017 - Jul 2017

- Predicted and developed candidates for graphene energy storage
  - Developed algorithm to predict the properties of graphene structures, reducing supercomputer access cost by 70%
  - Published findings in ACS Applied Materials & Interface: Electron Transfer Kinetics at Graphene Quantum Dot Assembly Electrode

#### PROJECT EXPERIENCE

## **Data Analytics** | Water Quality Analysis | Python

- Managed large relational databases from the Atlanta Watershed to track water quality
- Initiated and executed plan to decrease cost of contaminant monitoring by 40%
- Organized local contaminations and proposed solution strategies using clustering methods trained on statewide data
- Recommended corrective actions to improve quality and monitoring in neglected areas

## **Production and Design** | Benzyl Acetate Production

- Designed enzyme-catalyzed benzyl acetate production process with 20% higher profitability than current industrial standards
- Decreased potential capital cost by \$6 million by designing process from current equipment specs

# **Multiplayer Real-Time .io Game** | *Python/Django/Typescript/React*

• Built a real-time, web-based, multiplayer game utilizing websockets and RestAPI on a Django/Postgres backend with a Typescript/React frontend.

#### **SKILLS**

Programming:	Python, Typescript/JavaScript, HTML/CSS, MATLAB, SQL
Frameworks:	Django, React, Tailwind, Postgres, GraphQL, RestAPI, Websockets
Software:	Excel, Unix shell, Git