# Alessandro Ferrari

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# **EDUCATION**

GEORGIA INSTITUTE OF TECHNOLOGY, College of Computing, College of Biological Sciences	Atlanta, GA
Bachelor of Science in Computer Science, Minor in Biology	May 2025
Concentration: Intelligence, Modeling & Simulation	<b>GPA:</b> 3.91
<ul> <li>Dean's List</li> </ul>	

## EXPERIENCE

## **Maverick Biometals (YC S22)**

### Incoming Machine Learning Engineer Intern

Maverick uses machine learning to manufacture enzymes that mine metals.

- Working on the main ML platform for de-novo enzyme generation using state of the art deep learning models
- Founded in 2022, Maverick has been backed by Y Combinator (S22) and has raised \$10 million dollars in seed funding

### Biocentis

## Software Engineer Intern

Biocentis is an agrotech company that leverages genetic engineering for vector pest control.

- Developed a GPU Agent Based Model to represent the Drosophila Suzukii from the Genotype to Swarm flight pattern
- Leveraged GPU C++ algorithms to cut down simulation time from 8 hours (CPU + Python) to 3 minutes (GPU + C++)
- Led biology-informed project from brainstorm to DevOps, communicating complex concepts to non-technical stakeholders

## Egicon S.r.l.

### Firmware Developer Intern

Egicon S.r.I. designs and produces "Plug & Play" electronic solutions for high-performance systems.

- Developed bare metal C++ software based on employer datasheet for their custom hardware components
- Shipped embedded firmware to production circuit, which was printed and deployed on the field 1000+ times
- Employed industry standard communication protocols (ModBus) to ensure integration of product

#### WestSideEats

#### Software Engineer

WSE is a New York based nonprofit startup specializing in food deliveries.

- Leveraged agile software development to ship product to hundreds of paying users on a weekly basis
- Led end-to-end project lifecycle of internal ReactJS tools to cut development time and enable client menu outsourcing
- Oversaw integration of industry-standard payment technologies like Square, achieving \$300+ in weekly revenue.

# RESEARCH

# Gibson Lab @ Georgia Institute of Technology

- Single cell transcriptomics for Gene Expression prediction
- Prepared human blood immune system data to use as control during transcriptomic modeling and analysis
- Established a pipeline that turns raw scATAC and scRNA reads into aligned, quality-controlled, analysis ready data
- Performed Machine Learning and statistical analysis on human PBMC data and reported results in weekly meetings
- Developed a framework that automates testing large numbers of clustering algorithms to determine best performing

# SKILLS/INTERESTS

Technologies:	Python, Java, C, C++, Rust, R, Javascript, HTML, CSS, Typescript, React, Tensorflow, Jupyter, Git, JIRA, AWS,
	Linux, Docker,
Affiliations:	VP of Content Direction @ Georgia TechBioinformatics Club, Human Genomics Journal Club, Grand Challenges
Awards:	First Place in the RomeCup robotics competition in 2015, Second place in 2014
Languages:	Italian - native, English - C1, French - Basic, Latin - Proficient

May 2024 - August 2024

San Antonio, TX

Milan, Italy May 2023 - August 2023

New York, NY - Modena, Italy

New York, NY

Sept 2021 - Jun 2022

June 2021 - July 2021

Atlanta, GA

June 2023 - Present