

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 2026

- **Concentration:** Intelligence, Systems & Architecture
- *Dean's List*

GPA: 3.93

EXPERIENCE

Maverick Biometals (YC S22)

San Antonio, TX

Principal Machine Learning Engineer Intern

May 2024 - August 2024

Maverick uses machine learning to manufacture enzymes that mine metals.

- Led *DRWN*'s development—a spinoff of Maverick—earning a promotion to division manager and leading a team of 4 engineers
- Developed generative protein design system combining distributed HPC and ML for protein fitness landscape exploration
- Worked directly with CEO in daily meetings to align the company's vision with its technology, focusing on generating value
- Contributed to state of the art protein engineering models METL (Gitter Lab, UW Madison) and FragFold (Wei-Li, MIT)

Biocentis

Milan, Italy

Software Engineer Intern

May 2023 - August 2023

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++)
- Worked on GPU/CPU interoperability and developed a low level cross language simulation algorithm
- Led biology-informed project from brainstorm to DevOps, communicating complex concepts to non-technical stakeholders

Egicon S.r.l.

New York, NY - Modena, Italy

Firmware Developer Intern

June 2021 - July 2021

Egicon S.r.l. 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 10000+ times
- Employed industry standard communication protocols (ModBus) to ensure integration and longevity of product

WestSideEats

New York, NY

Software Engineer

Sept 2021 - Jun 2022

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

- Leveraged agile software development to ship product to hundreds of 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

Atlanta, GA

Single cell transcriptomics for Gene Expression prediction

June 2023 - Aug 2024

- Prepared human blood immune system data to use as control during transcriptomic modeling and analysis
- Automated pipelines to go from 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, HPC, Distributed Systems, Microservices, Full Stack, Vertical Integration

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