

# Alessandro Ferrari

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## EDUCATION

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**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 **GPA: 4.0**  
• *Dean's List*

## EXPERIENCE

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**Biocentis** **Milan, Italy**  
**Software Engineer - Bioinformatics** *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++)  
• Conducted daily and monthly meetings to update the international team about project's updates

**Egicon S.r.l.** **New York, NY - Modena, Italy**  
**Firmware Developer** *June 2021 - July 2021*  
*Egicon S.r.l. designs and produces "Plug & Play" electronic solutions for high-performance systems.*  
• Developed bare metal software in C++ for custom hardware used in product testing  
• Synced with remote team to make revisions based on senior developer feedback and prepared circuit for production  
• Employed industry standard technology stacks to ensure longevity of product while having complete control over direction of the project

**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 in a team to present a product using technologies like React, AWS and Square  
• Developed internal tools in ReactJS to decrease development time and enabled outsourcing of menus to clients  
• Utilized industry standard tools like git and Jira to sync with the team

**Rocky Linux** **New York, NY**  
**Software Quality Analyst** *August 2021 - October 2021*  
*Rocky Linux is the successor of CentOS, after it was bought and terminated by IBM.*  
• Synced up with a team from around the world to bring together a free, enterprise-grade operating system  
• Worked with a team of 20 people turned into a community of thousands through directional weekly meetings  
• Used industry standard tools like Bugzilla and Mattermost to track progress and communicate with team

## RESEARCH

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**Gibson Lab @ Georgia Institute of Technology** **Atlanta, GA**  
**Single cell transcriptomics for Gene Expression prediction** *June 2023 - Present*  
• 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

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**Technologies:** Python, Java, C, C++, Rust, R, Javascript, HTML, CSS, Typescript, React, Tensorflow, Jupyter, Git, JIRA, AWS, Linux  
**Affiliations:** Grand Challenges, Bioinformatics Club, Human Genomics Journal Club (Center for Integrative Genomics)  
**Awards:** First Place in the RomeCup robotics competition in 2015, Second place in 2014  
**Languages:** Italian - native, English - C1, French - Basic, Latin - Proficient  
**Volunteering:** New York City Common Pantry 2019-2022, Trees Atlanta 2023