

# ALEXANDER J. PIERONI

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## EDUCATION

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### Duke University, Trinity College of Arts & Sciences

Aug 2021 — May 2025

Interdisciplinary Major in Computer Science & Linguistics B.A., Classical Languages B.A., Minor: Classical Archaeology

- **GPA:** 3.97/4.00
- **Relevant Coursework:** Digital Archaeology & Methodology, Computer Architecture, Language and Media, Introduction to Databases, Discrete Math

## WORK EXPERIENCE

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### Undergraduate Teaching Assistant, Department of Computer Science

Aug 2023 — Present

- Attends weekly meetings to discuss course materials, grading guidelines, and student progress
- Grades assignments and provides feedback to improve students' understanding of data structures and algorithms
- Builds lesson plan and leads discussion sections of ~20 students to facilitate in-depth learning and material engagement
- Holds office hours to provide one-on-one assistance to students for concept clarification and academic support

### Student Developer, Duke Innovation Co-Lab

Aug 2023 — Present

- Develops software projects for Duke's Innovation Lab, builds tools for education and foundational classes
- Holds office hours for students of any academic background to pursue novel personal projects
- Developing a web app rendition of the game Alchemy to explore resources within Duke's Innovation Co-Lab

### Software Engineer & Project Management Intern, Duke University Code+ Program

May 2023 — August 2023

- Collaborated with the Office of Information Technology to eliminate student wait times for package pickup
- Built a student portal integrated with a Package Training system, providing notifications and preferred pickup times
- Engaged with stakeholders, including Campus Mail Services and corporate sponsor Microsoft, to align project goals and leverage additional support and resources for successful project outcomes

### Undergraduate Research Assistant & Field Archaeologist, Vulci 3000

Jun 2022 — Present

- Implemented novel digital archaeology techniques on a Roman-Etruscan urban center to examine ancient urbanization
- Acts as a primary undergraduate contributor to the [Neurocities and Ruinscapes: Reconstructing Ancient Cities in VR](#)
- Utilized 3D modeling, inscription translation, and VR to create an engaging experience of the [Vicchio Stele](#), enhancing understanding of its context; presented at the Luigi Rovati Foundation Museum in Milan

## SOFTWARE APPLICATIONS

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### Duke Package Pickup Hub

June 2023 — August 2023

- Streamlined package tracking in a dynamic web application by integrating data from multiple 3rd party API endpoints
- Spearheaded the development of a user-centric application and scheduler using React, building reusable components
- Ensured seamless cross-platform device compatibility for an estimated 8,000 users, with a beta run in Fall 2023

### ChatMedea, OutInTech Mentorship Program

April 2023 — June 2023

- Developed and fine-tuned an interactive chatbot using a parsed dataset of Euripides' Medea and the Diablo GPT model
- Integrated the Hugging Face API and Transformers tools, enhancing the chatbot's capabilities and user experience
- Created a user-friendly frontend with JavaScript, HTML, and CSS, facilitating seamless interaction with the chatbot

## LEADERSHIP & CAMPUS INVOLVEMENT

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### Executive Board Member & Business Manager, The Pitchforks of Duke University

Aug 2021 — Present

- Manages 50+ annual performance opportunities worldwide and supervises the successful execution of national tours
- Maintains proper financial statements and develops financial goals for each quarter, including budgeting and forecasting
- Increased group revenue by 14% through the implementation of new fundraising strategies through alum outreach

## SKILLS

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- Code: Java, Javascript, ReactJS, React Native, R, Python, Ruby/Ruby on Rails, HTML/CSS, PostgreSQL, C, Assembly
- Other: Git, Docker, Metashape, ArcGIS, Photogrammetry
- Languages: English, Italian, Ancient Greek, Latin