ALEXANDER J. PIERONI

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SKILLS

- Programming Languages: Java, Python, R, Javascript, Ruby, C
- Web Development: HTML, CSS, Ruby on Rails, ReactJS
- Frameworks/Tools: Metashape, Adobe Creative Suite, ArcGIS, Photogrammetry, Git, Docker, React Native
- Databases: MongoDB, PostgreSQL
- Languages: Fluent: English; Full Professional Proficiency: Ancient Greek, Latin; Intermediate Proficiency: Italian

WORK EXPERIENCE

Software Engineer Intern, Duke University Code+ Program
May 2023 — August 2023

Technologies: ReactJS, Docker, HTML, Project Management, Data Structures, CSS, JavaScript, Ruby, Ruby on Rails

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

Undergraduate Research Assistant & Field Archaeologist, <u>Vulci 3000</u>
Jun 2022 — Present

Technologies: GIS, Total Station, Laser Aided Profiler, VR, Multi-Spectral Drones, Photogrammetry, Metashape, Unity

- Recipient of <u>Classical Studies Research Travel Award</u>
- Implemented novel digital archaeology techniques on a Roman-Etruscan urban center to examine ancient urbanization
- Acts as primary undergraduate contributor to the <u>Neurocities and Ruinscapes: Reconstructing Ancient Cities in VR</u>
- Developing statistical analysis in R using the dplyr package of neurological data captured through eye-tracking
- Utilized 3D modeling, inscription translation, and VR to create an engaging experience of the <u>Vicchio Stele</u>, enhancing understanding of its context; presented at the Luigi Rovati Foundation Museum in Milan

Consultant & Teaching Assistant, <u>Kyros.ai</u>
Jan 2022 — Present

- Designs comprehensive sprint programs for high school students' academic development that align with their goals
- Develops project-based curriculum for students to design their own independent projects
- Provides private consulting to students who have seen an average 10% improvement in their grades

Executive Board Member & Business Manager, <u>The Pitchforks of Duke University</u>
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 20% through the implementation of new fundraising strategies through alum outreach

SOFTWARE APPLICATIONS

<u>ChatMedea</u>, 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

Route
Nov 2022 — Dec 2022

- Developed a Java program to calculate the shortest path between two cities in a graph using Dijkstra's algorithm
- Implemented file input/output, data parsing, and visualization
- Utilized data structures and an adapted Dijkstra's algorithm to optimize the program's performance

EDUCATION

Duke University
Aug 2021 — May 2025

GPA: 3.971

- **IDM Major in Computer Science + Linguistics, B.A., Classical Languages, B.A.** Minor in Classical Archaeology
- Relevant Coursework: Digital Archaeology & Methodology, Computer Architecture, Language and Media