

## Charles Pletcher

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<https://github.com/pletcher>

### SUMMARY

- 10+ years of full-stack software engineering experience (Django, FastAPI, Phoenix, Ruby on Rails, Express, HAPI)
- API design (REST, GraphQL)
- Frontend development (React, Next.js, Svelte)
- Rich-text editor development (e.g., <https://gitlab.com/newalexandriafoundation/opencommentary/-/blob/main/client/src/common/modules/orpheus-editor/components/Editor/Editor.jsx>)
- Relational databases (PostgreSQL, MySQL)

I am a multi-disciplinary software engineer with over a decade of full-stack web development experience, focusing on backend and data storage systems. Most recently, I architected and built the *Ajax* Multi-Commentary (<https://ajmc.unil.ch>), a reading environment for sixteen commentaries on Sophocles' *Ajax*, working on a cross-functional team as both a researcher and a software engineer. Previously, I helped build the Open Commentaries platform (<https://opencommentaries.org>), and I led a five-person team in rewriting the introductory JavaScript and Node.js curriculum at the Flatiron School. I am currently working on a vector-space analysis of Sophocles' tragedies and a minimal computing platform for digital commentaries on texts ranging from Homer to Shakespeare.

### EMPLOYMENT

#### Research Software Engineer, University of Lausanne, September 2023 – August 2024

- Worked with a small team of classicists and researchers to build and deploy the *Ajax* Multi-Commentary (<https://ajmc.unil.ch>) as part of a pipeline involving OCR and natural language processing
- Implemented a IIIF server for displaying annotated facsimiles of commentary pages
- Currently co-writing an article on network analysis of lemma citations
- Languages and technologies: Elixir, Phoenix, Python, TEI XML

#### Senior Software Engineer,\* New Alexandria Foundation, July 2018 – Present

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\* Contract position

- Combined training in classical languages and literature with software engineering experience to build the reading and editing environments for Open Commentaries (<https://opencommentaries.org>, <https://oc.newalexandria.info>)
- Contributed to server administration and ongoing maintenance
- Languages and technologies: JavaScript, React, Python, Django, TEI XML, Pandoc, GCP

### **Senior Software Engineer,\* Inscriptions in Israel/Palestine, July 2023 – August 2024**

- Ingested 5000 inscriptions in Greek, Latin, Hebrew, and Aramaic into a PostgreSQL data schema
- Built a search and browse API for the inscriptions
- Built an interactive map using Mapbox and GeoJSON.
- Languages and technologies: Python, FastAPI, PostgreSQL, JavaScript, SvelteKit, EpiDoc

### **Technical Curriculum Lead, The Flatiron School, 2016**

- Led a team of five in redesigning the introductory JavaScript and Node.js curriculum, which helped double online enrollments
- Oversaw and managed the creation of an introductory computer science course
- Collaborated with instructors to build a Flatiron-specific extension to Omniauth
- Supervised the implementation of an automated triage tool using natural language processing for GitHub issues
- Languages and technologies: Ruby (on Rails), JavaScript, React, Node.js

### **Software Engineer, Assembly, 2014 – 2015**

- Contributed across the stack to development of the Assembly collaborative platform
- Led transition to a microservices architecture
- Led development of payments and chat platforms
- Led development of topic extraction plugin for Slack
- Languages and technologies: Ruby (on Rails), PostgreSQL, JavaScript, Python, Go

### **Software Engineer III, Kosmix (acquired as Walmart Labs), 2013 – 2014**

- Contributed to development of internal product taxonomy search tools
- Built API for printing photos in-store from the Android mobile application
- Languages and technologies: JavaScript, Node.js, Riak

## **EDUCATION**

- Ph.D. Classics, Columbia University, 2023
- M.A. Comparative Literature, Dartmouth College, 2013
- B.A. Classics (honors) and Comparative Literature, Brown University, 2012

## SELECT PUBLICATIONS AND PRESENTATIONS

With Sven Najem-Meyer and Matteo Romanello, “The Ajax Multi-Commentary: a Digital Platform for the Comparative Analysis of Classical Commentaries,” Annual Conference of the Alliance of Digital Humanities Organizations, Washington, DC, August 2024

“Write What You Know: Enabling open, collaborative publications with commercial tools,” Ancient MakerSpaces, Annual Meeting of the Society for Classical Studies, Chicago, IL, January 2024

With Sven Najem-Meyer and Matteo Romanello, “The *Ajax* Multi-Commentary,” <https://ajmc.unil.ch>, 2024

With James Tauber, Jacob Wegner, and Gregory Crane, “Beyond Translation: Digital Edition of the Venetus A Manuscript of Homer’s *Iliad*,” <https://beyond-translation.perseus.org/reader/urn:cts:greekLit:tlg0012.tlg001.msA-folios:12r.1.1-12r.1.25?mode=folio>, 2023

“Writing a Digital Commentary on the New Alexandria Platform,” Annual Meeting of the Society for Classical Studies, Online, January 2021

“Polyglot Micro-Services with a Dash of Wittgenstein,” Polyglot Programming Conference, Poznań, Poland, July 2015

## LANGUAGES

### Ancient

Greek, Latin  
Aramaic (with dictionary)

### Modern

English (native)  
Spanish (advanced reading, speaking, and writing)  
French, Italian (advanced reading, intermediate speaking and writing)  
Catalan, German, Portuguese (reading)

### Programming

Elixir (Phoenix), JavaScript (Node.js, Express, React, Svelte[Kit]), Python (Django, FastAPI, Flask), Ruby (Rails, Sinatra)

Familiarity with NLP and machine learning techniques