

Paolo Pedrigal

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TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Python, C/C++, Java, SQL, Bash, HTML/CSS
Libraries/Frameworks: React, Next.js, NumPy, pandas, Matplotlib, NLTK, sci-kit learn
Backend/Databases: AWS, PostgreSQL, MongoDB, Cassandra, Neo4j, Node.js, Express.js
Tools: Git, Docker, Postman, Jupyter Notebook, Visual Studio Code, Figma, Jira

EXPERIENCE

Software Engineer

September 2022 – Current

Tayo.One

San Francisco, CA

- Achieved approximately 20% improvement in web application page load times, utilizing TypeScript and React (Next.js).
- Refactored existing code into reusable components, leading to faster feature development by 10%, measured by project timelines.
- Leveraged Docker containers to create a consistent and scalable development environment for code portability.
- Utilized AWS Elastic Beanstalk for web deployment and auto-scaling.
- Collaborated with lead software engineer, UX designer, and product manager, through code reviews and stand-up meetings.

Product/Test Engineering Intern

June 2022 – August 2022

Skyworks Solutions, Inc.

Irvine, CA

- Implemented 2 Python scripts that extracted semiconductor data from raw data to improve the efficiency of data analysis.
- Updated code documentation to meet the current version of my team's software.
- Reported 3 bugs found at the front end user interface of my team's data analytics system in TIBCO Spotfire.
- Communicated with fellow engineers through daily to weekly stand-up meetings.

Front End Developer Intern

June 2021 – August 2021

MLiora, LLC

San José, CA (Remote)

- Assisted the front end development team in coding the company's prototype website.
- Coded 10+ React JS components for code reusability to streamline development time by 15%.
- Implemented basic CSS Bootstrap styling to existing webpages.
- Worked in a fast-paced environment at a startup, gaining teamwork and communicative skills.

Data Science Fellow

June 2021 – August 2021

University of California, Santa Barbara

Santa Barbara (Remote), CA

- Performed data analysis with Python's NumPy and pandas on 295,938 entries of biological data on bee species and plant species.
- Created 2 linear regression models to detect correlations between the data on bee species and plant species.
- Trained and tested a KNeighbors classification model to identify bee-plant interactions by bee family.
- Utilized heat maps and world map plots to present findings of research.

PERSONAL PROJECTS

Wordle Customizer Full Stack Website | *React, JavaScript, HTML, CSS, Express, Node.js, PostgreSQL, AWS*

- Built a full-stack website that allows users to create their own version of Wordle (The NY Times). Users will then be able to share their custom game with friends through a private link.
- Handled REST API routes on an Express server, interacting with a PostgreSQL database, while fetching data from the frontend using Axios.
- Deployed the application on an Ubuntu server in an AWS EC2 instance, configured with an NGINX reverse proxy.

Predicting Universal Studios Ratings | *Python, NumPy, pandas, Matplotlib, NLTK, sci-kit learn, Jupyter Notebook*

- Applied basic machine learning principles and exploratory data analysis to predict the ratings of a Universal Studios reviews dataset.

- Preprocessed raw text, utilizing Python's NLTK, by removing non-English and stop words in each ratings text.
- Trained a Multinomial Naïve Bayes machine learning model, splitting 20% of the data for testing and using an F1 score metric for accuracy.

Interactive Neighborhood Map | *JavaScript, HTML, CSS, Python*

- Coded an interactive map of neighborhoods in North San José, California using HTML Scalable Vector Graphics (SVG).
- Obtained raw geographic coordinates through Google My Maps and rescaled coordinates in Python.
- Added JavaScript event handling to display neighborhood information and styling when neighborhoods are clicked.

UNIVERSITY COURSE PROJECTS

Compiler from Scratch, CS 142A, UCI | *Java, ANTLR, Maven, GitLab*

- Built a compiler that undergoes the following stages: parses Crux source code, creates an ANTLR parse tree, performs type checks via abstract syntax tree, builds an immediate representation, and generates assembly code.
- Honed knowledge of compiler infrastructure and optimizations.

C++ Server for Election Voting, ICS 53, UCI | *C++, Docker*

- Simulated a voting system by creating a local server that accepts clients simultaneously, utilizing C++'s pthread and signal libraries and knowledge of synchronization fundamentals.
- Used basic Docker methods to ensure proper environment setup.

Instagram Web Scraper, IN4MATX 117, UCI | *Python, Selenium, BeautifulSoup, SQLite, Tkinter*

- Web scraped data dynamically from Instagram posts, utilizing Python's Selenium and BeautifulSoup libraries.
- Performed CRUD operations by storing data in a local SQLite database and displaying results on a simple GUI.

EDUCATION

University of California, Irvine

June 2023

Bachelor of Science, Computer Science

Irvine, CA

- Recipient of the Regents' Scholarship, Dean's List in Fall 2021
- Relevant Coursework: Machine Learning & Data Mining, Beyond SQL Data Management, Algorithms & Data Structures

Stanford Biomedical Data Science Program

June 2021

Mentorship

Palo Alto, CA

- Leveraged knowledge in data science fundamentals through Stanford's *Inclusive Mentoring in Data Science*.