Justin L. Perona

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Summary

Computer scientist with open-source contributions in Python, C++, and R. Previously a university instructor who taught classes on computer architecture and how to teach computer science. Significant experience in working with technical and non-technical clients and writing clear documentation for both groups.

Skills

- Python
- Version control (Git)
- Jekyll
- C++
- Docker
- WordPress
- R
- CI/CD (GitLab deployments)
- LaTeX

Education

University of California, Davis
Davis, California

- Computer Science, MS — 09/2016 - 06/2019
- Computer Science and Engineering, BS — 09/2012 - 06/2016

Experience

Graduate Peer Adviser — 09/2016 - 09/2020
Department of Computer Science, UC Davis

- Advised prospective and 300+ current students in the computer science graduate program.
- Completed administrative work, including for graduate program review and back-end admissions.
- Maintained C++/Python application to aid with graduate program admissions.

Associate in Computer Science — 08/2018 - 06/2020
Department of Computer Science, UC Davis

- Instructor of record for introductory computer architecture classes for two quarters.
- Instructor of record for computer science teaching pedagogy seminars for four quarters.
- Held sole responsibility for course administration, including lecturing, grading, and course material.

Teaching Assistant — 04/2015 - 03/2019
Department of Computer Science, UC Davis

- Lead TA for computer architecture classes (undergraduate and graduate) for nine quarters.
- Developed course assignments, led discussions, held office hours, and proctored exams.
- Excellence in teaching led to me teaching my own computer architecture classes.

Projects

BART Passenger Heatmap — 02/2019 - 03/2019
https://perona.dev/projects/bart-passenger-heatmap

- Developed a R/Shiny application to display San Francisco BART passenger data.
- Used GIS data to visualize the network and combined it with parsed passenger data to color polylines.
- Added additional subsetting options and input validation to make application more robust.

Death Star Wayfinding — 01/2016 - 06/2016
https://perona.dev/projects/death-star-wayfinding

- Senior design project for capstone course during the last year of BS degree.
- Implemented an SVG linter in C++ for use with the UC Davis Wayfinding application.
- Completed linter was used to correct data errors in maps used for deployed application.