

## Val J. P. Syverson

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### Summary

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Ph.D. paleontologist with expertise in writing/illustrating/editing technical reports, manuals, and scientific papers, statistics/data science, collections management, teaching, website development. Familiar with geology of California, Great Basin, and Upper Midwest. Looking for positions with flexible schedules; comfortable working remotely or within 1 hour commute.

### Skills

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Strong background in statistics and geoscience; experience with fieldwork and management; technical editing and illustration, including for paleo/archeo consulting; peer-reviewed publication record, public speaking in conferences and classrooms; proficient R programmer. Strong quantitative, visual, and communication skills. Comfortable with team projects and remote working.

Technical: R (many libraries), HTML5/CSS/JS (jQuery, d3) with JSON APIs, SQL (MySQL, PostgreSQL); Github, Adobe CS, Unix, Microsoft Office/LibreOffice

### Education

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University of Michigan – Ann Arbor, Michigan	2009-2014
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Ph.D., Geology.

California Institute of Technology, Pasadena, California	2003-2008
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B.S., Geology.

### Experience

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*Professional publication and technical communication (full academic CV available upon request)*

- 10 papers published/accepted in peer reviewed journals (Paleobiology, Bulletin of Marine Science, Eos, Quaternary Science Reviews, PLoS One, PalArch JVP)
- 11 conference abstracts as first author, 15 as collaborator; 2 invited seminar talks; doctoral thesis
- Technical editor, Paleo Solutions/Rocky Mountain Paleo Solutions (October 2015 – June 2017). Edited technical reports (planning, permitting, surveys, compliance, and mitigation) on paleontological, archeological, and environmental resources.
- Consulting editor, American Journal Experts (February 2015-June 2017). In-field English-language and technical editing services on scientific publications.
- Technical writer, eSolar (June 2008-July 2009). Consulted with engineers and field operators to write documentation and make diagrams for solar-thermal field manuals. OSHA 10-hour certification.

*Teaching, fieldwork, and management*

- Project paleontologist, PaleoWest (2018-). Projects supervised: City of Fresno Regional Transmission Main (Phase II), Desert Harvest Solar Project
- Geology and biology professor, Clovis Community College (2018- ). Courses taught: Physical Geology (lecture + lab), Introduction to Life Sciences (lab)
- Graduate teaching assistant, University of Michigan, Ann Arbor (2010-2016). Courses taught: Evolution and the Earth (discussion), Invertebrate Paleontology Lab (lab + field trip)

- Lead builder with Nifty Hoops (2011-2016).  
Ran volunteer and employee crews to build hoop houses on small farms in Southeast Michigan.
- Museum collections management assistant (Summer 2010, 2011, 2012; Fall 2011, 2012).  
Assisted collections manager in managing undergraduate employees, organizing specimens, digitizing collection information, and producing 2D and 3D scans of specimens in type collection.

#### *Programming and statistics*

Postdoctoral researcher, University of Wisconsin, Madison, 2016-present

- Developed text-mining software in R + PostgreSQL to extract mentions of numbered museum specimens from a large corpus of scientific literature. I'm currently developing it further into a collections management tool. [geodeepdive.org](http://geodeepdive.org), [github.org/UW-Deepdive-Infrastructure](https://github.com/UW-Deepdive-Infrastructure)
- Maintained and improved UI/UX functionality for Paleobiology Database. I have rewritten existing JS code for API-based graphical exploration interface, redesigned pages and tables in the MySQL backend, and designed and implemented new analysis tools, resulting in better usability and increased traffic. I am still active on this project. [paleobiodb.org](http://paleobiodb.org), [github.org/paleobiodb](https://github.com/paleobiodb)
- Worked on team designing an API for interoperability between Paleobiology Database and other biology and biogeography databases (ePANDDA/ELC). [epandda.org](http://epandda.org)

Doctoral student and independent researcher, University of Michigan, 2008-2016

- Correlated ecological factors with defensive adaptations to reconstruct relationships between predators, prey, and parasites in the Paleozoic, revealing preferences of predators and parasites.
- Analyzed prey animal regrowth to estimate predation through history of Earth's oceans, demonstrating that predation in ancient oceans was lower than in any modern environment except the deep sea.
- Used size data measured from submarine videos to identify age cohorts and estimate recruitment, growth, and injury rates in a population of modern deep-sea crinoids.
- Developed and used a method for characterizing arbitrary branching forms to characterize the changes in crinoid arms over their evolutionary history, showing that crinoids responded to increasing predation by adopting less vulnerable branching forms.
- Used nonparametric statistics and time-series analysis to identify two species of condors and show that climate change did not result in body size changes in birds or mammals at La Brea.

## Profiles

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Github: <https://github.com/vjpsyverson>

ResearchGate: [https://www.researchgate.net/profile/V\\_Syverson/](https://www.researchgate.net/profile/V_Syverson/)

Google Scholar: <https://scholar.google.com/citations?user=xZZM1EMAAAAJ&hl=en>

LinkedIn: <https://www.linkedin.com/in/valerie-syverson-4a46093/>