Salim Damerdji

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Resume Summary

Proven statistician with 3+ years experience as a technical lead in data science and AB experimentation.

Education

- **University of Oxford** — Oxford, UK
  Statistics MS — *Class of 2023*
  Dissertation earned a distinction.
- **University of California, Berkeley** — Berkeley, CA
  Statistics BA; Philosophy BA — *Class of 2019*
  GPA: 3.89

Work Experience

- **Synopsys** — Mountain View, CA
  Research and Development Engineer II — *Jan 2020 - July 2022*
  - **Data Science R&D:** Led R&D projects big and small during the growth stage for DSO.ai, now an award-winning machine learning tool used by 9 of the top 10 semiconductor companies.
  - **Collaboration:** Communicated across the organization to translate stakeholder needs into a mathematically rigorous solution. Architected support for optimization with non-linear constraints, leading DSO.ai to outperform a human expert's best try across all metrics at Samsung, yielding new revenue.
  - **Prototyping:** Rapidly iterated on a Bayesian optimizer to win 1st place in the optimizer benchmark that year.
  - **Communication:** Presented on technical topics to cross-functional teams, with actionable recommendations.
  - **Mentorship:** Led a reading group wherein cutting edge research papers were analyzed with junior coworkers.
  - **AB Experimentation:** Ran and analyzed complex multi-factor experiments to set direction for new features.
  - **Programming Best Practices:** Completed code reviews, wrote clean Python, exceeded 90% test coverage.

  Machine Learning Intern — *June 2019 - Aug 2019*
  - **Predictive Modeling:** Built ML predictors of chip quality, reducing error by up to 100x over baseline models.
  - **Visual Analytics:** Presented crisp visualizations to tell the story of critical data to decision-makers.

  Engineering Intern — *May 2018 - Aug 2018*
  - **Segmentation:** Clustered large datasets of DRCs 10x faster than minibatch k-means.
- **Vuclip** — Milpitas, CA
  Engineering Intern — *June 2013 - Aug 2013*
  - **SQL Querying:** Automated reporting of user logs on Vuclip, one of the 30 most-visited mobile sites in 2010.

Papers

S. Kapur, **S. Damerdji**, C. Elmendorf and P. Monkkonen (2021) "What Gets Built on Sites That Cities 'Make Available' for Housing?" UCLA's Lewis Center for Regional Policy Studies.

- *Note:* See our data mapping tool at lewis.ucla.edu/RHNAmaps. State press reported on our findings.

S. Damerdji, C. Elmendorf and P. Monkkonen (Forthcoming) "Are sites selected for a site inventory more likely to be developed into housing, all else equal?"

- *Note:* Causal ML paper that controls for confounders with partially linear logistic regression.

Projects

- **Logistic DoubleML:** Open-source Python package that implements the causal ML model in Liu et al.'s 2021 paper 'Double/debiased machine learning for logistic partially linear model.'
- **Fair Housing:** Scored 32 cities on fair housing metrics. Data analysis earned press coverage due to data storytelling.
- **AB Experimentation:** Designed, ran, and analyzed a multi-factor, completely randomized block experiment (n=48) with 83% power. Study found that bias against women in leadership is resilient to reading critiques of this bias.

Skills

SQL, Python (Pandas, Numpy, sklearn, MXNet), R, MongoDB, Dask, AWS, git, unix, Java