

# Joe Patten

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Glassdoor  
100 Shoreline Highway  
Mill Valley, CA 94941

Dear Hiring Manager,

**Currently enrolled in a Ph.D. program in Economics:** I am applying for the Economist internship currently open at Glassdoor. I am a 3rd year Economics PhD student with fields in applied econometrics and industrial organization. I believe that my education and research experience in identification strategies for causal inference, as well as my passion for programming will allow me to be an asset to Glassdoor. I have tailored this cover letter to address how my qualifications line up with your requirements.

**Knowledge of applied econometrics, data science and statistics:** As one of my fields is applied econometrics, I have taken multiple econometrics and statistics courses. I consider myself to have an advanced or even expert level knowledge in panel data techniques as I use them a lot in my research, but I also have an extensive working and practical knowledge of a variety of econometric, data science and statistical methods. I am also currently taking a computer science data structures and algorithms course, and a machine learning course online.

**Research ability in applied labor economics:** Most of my research has been focused in the Economics of Education and Labor Economics. My current projects include evaluating the effect of spending and tuition cuts in higher education in the US, and the analyzing the impact of building postsecondary institutions on various outcomes in Ethiopia.

**Experience with machine learning techniques:** I have experience using regression trees and random forests, model selection methods such as lasso and lars, support vector machines, clustering, and neural networks. I plan on integrating these techniques and methods into my research in the future.

**Experience programming:** I have used Python, R, and Stata to build, clean, and run analysis on many large datasets (10 million+ observations), high dimensional datasets (1000+ variables), and confidential datasets. I currently teach graduate students of several disciplines how to efficiently use Python in their research, and volunteer at many Python related workshops and courses at WSU.

**Experience with data visualization tools:** I have practical experience with data visualization tools in Python (Plotly, Seaborn, Matplotlib) and also Tableau.

**Experience using SQL:** I have a basic knowledge of SQL, however, I have a lot of experience (and love for) working with data.

**Strong communication skills, including desire and ability to summarize research for lay audiences:** I have taught a variety of WSU undergraduate and graduate courses, taught a variety of python workshops and presentation groups, and have worked with many collaborators for my research. These opportunities have given me ample experience in communicating with both technical and nontechnical audiences.

**Other requirements:** I do not have any experience in creating data pipelines, however, I do have experience using AWS and I have a passion for programming. I have a deep interest in building predictive models and data pipelines to help the team be more productive for years to come. The opportunity to work with Glassdoor's data to explore different issues and topics is really exciting to me.

I whole-heartedly believe that I would be the perfect fit for your company. Attached, you will find my CV. I look forward to speaking with you in further detail about the internship and opportunity with Glassdoor.

Sincerely,

Joe Patten