

Paul Schumacher

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EDUCATION

University of California Los Angeles Los Angeles, CA
Master's in Quantitative Economics (MQE); GPA: 3.74/4.0 June 2023

- **Relevant Coursework:** Big Data, Bayesian / Spatial Statistics, Cloud Infrastructure, Data Vis., Deep Learning/ Neural Networks, Forecasting, Econometrics, SQL/Data Mgmt., Machine Learning, Reg. Trees/ Random Forest, Topic Analysis
- **Activities:** UCLA Data Science Union, German Academic Exchange Service (DAAD), UCLA Men's Rowing Team

Jacobs University Bremen Bremen, Germany
Double Bachelor's in Economics (GEM) & Politics (IRPH); GPA: 3.82/4.0 Aug 2020

- **Scholarships:** Jacob University Merit, European University College Association
- **Activities:** Exchange Semester Fudan University, Shanghai, Fintech Summer School IE University, Madrid, JU Rowing

EXPERIENCE

University of California, Los Angeles Los Angeles, CA
Peer Learning Facilitator Python Jun 2023 – Aug 2023

- Trained 26 rising UCLA first-year students in Python and SQL (Data Types and Containers, Functions and Classes, EDA/ File Operations, Exception and Error Handling, NumPy) in daily two-hour remote tutorials

Graduate Teaching Assistant, Data Science for Financial Time Series Jan 2023 – Apr 2023

- Taught weekly tutorials for 42 students, elaborating on coding applications in Python, covering risk and returns measures, (non-)stationary time series (ARMA, GARCH), and heteroscedastic/ conditional volatility models.
- Improved student learning experience through self-developed topic-related recorded videos, contributing to a 100% student pass rate and an average personal score of 7.6 out of 9 in the evaluation of instruction report.

CrewLAB Los Angeles, CA
Data Scientist Jul 2022 – Dec 2022

- Introduced data science to 36 collegiate and professional rowing programs as an active UCLA rowing athlete.
- Developed internal database and engagement report to track practice performance of 2500+ athletes whose data was processed in SQL and analyzed/visualized with Google Analytics and Looker Studio.
- Created an external easy-to-use scoreboard as a graphical user interface, assisting coaches in comparing athletes' physical and mental health and recruiters to scout high school rowers without observing external athletes in person.
- Initiated model to predict athlete's 2000m indoor rowing time specified to 10-seconds-intervals using supervised machine learning techniques (e.g., random forest, rolling averages), which in reverse suggest athletes set times for other indoor rowing exercises tailored down to reach their personal desired 2000m times according to their size and weight class.

Hamburg World Economic Institute (HWWI) Bremen, Germany
Junior Data Scientist Mar 2019 – Dec 2020

- Launched a working group for quantitative analysis at 1 of the four major economic institutes in Germany, advised its members in neural networks and deep learning to expand the institute's research repertoire through machine learning utilizing Python and R, resulting in the publication of 3 academic articles as the main and 12 as co-author.

TECHNICAL SKILLS

- A/B testing, Apache Azure, AWS, Bubble, Excel, Looker Studio, Moody's Analytics, Power BI, Python (scikit-learn, NumPy, pandas, matplotlib), R, SNL, Snowflake, SQL, Stata, Tableau, Time Series (ARIMA, ARCH/GARCH)

PROJECTS AND LEADERSHIP

Data Science Union (University of California Los Angeles) Los Angeles, CA
Project Leader, Director of Client Relations Sep 2022 – June 2023

Twitch Twits Project

- Directed a team of 4 undergrad students with a partially non-data science background to analyze the influence of title elements on viewership on the streaming platform Twitch.
- Supervised weekly meetings and trained group members in topic analysis (Natural language proc.: LDA, LSI, Word2Vec).
- Publicized results on Github and Medium to assist users in choosing title elements and encourage future research.

Dalle-Shop Project

- Guided five graduate students without prior topic-related knowledge to use stable diffusion on image proc.
- Briefed and debated the weekly process on backward machine learning proc. to denoise and invert diffusion models with prompt engineering, video creation, and depth prediction.
- Developed an app with TestFlight to enable users to generate and share artificial pictures via messenger application.