Edward Krueger

edkrueger@gmail.com l (713) 320-0700

Skills

Programming: Python (incl. NumPy and Pandas), HTML, CSS, SAS
Databases and File Systems: SQL (incl. PostgreSQL and Amazon Redshift), Linux/Unix (incl. grep and awk)
Data Visualization: Amazon QuickSight, ggplot, Tableau
Statistics and Data Mining: Descriptive Statistics, Hypothesis Testing, Principal Component Analysis
Statistical Models: Generalized Linear Models (incl. Linear Regression, Poisson Regression, Logistic Regression and ANOVA)
Economics: Game Theory, Econometrics, Decision Theory
Finance: No-arbitrage Pricing, Portfolio Analysis, Foreign Exchange Markets, Foreign Equity
Word processing: R Markdown, LaTeX, HTML, CSS, Markdown
Microsoft Office: Word, Excel, PowerPoint

Work Experience

September 2017 - Present (contract)

VCC Management LLC - Austin, TX
Management Company for For-Profit, Post-Secondary Schools
Business Intelligence Analyst / Developer

Automated reconciliation process:
-Coordinated with Compliance and Accounting to redesign the company-wide reconciliation process between internal and external systems
 (incl. student management software, accounting and financial aid systems)
-Created an automated reconciler in compliance with Dept. of Education regulations using Python with Pandas

June 2017 - August 2017

WorldQuant LLC - Austin, TX
Hedge Fund ($5bn in Assets)
Analyst Intern

Restructured hedging strategy:
-Used a Value at Risk model to analyze exposure and optimize hedging decisions
-Analyzed tick data to optimize purchase of hedging instruments

Developed Python Utilities:
-*Ticks Reader* - cleans and aggregates 100+ GBs of raw tick data (uses embedded Linux commands and Pandas)
-*Dividend Reconciler* - identifies breaks in position due to dividends, taxes and fees on ADRs and equities
-*Exposure Viewer* - identifies daily exposure to foreign exchange rates movements across US, Americas, Asia and Europe

September 2014 - August 2016

Private Tutoring - Houston, TX
Tutor

Founded Tutoring Business:
-Developed and maintained clientele using word-of-mouth, print and web advertising
-Specialized in tutoring advanced math courses (incl. Vector Calculus, Linear Algebra, Differential Equations and Real Analysis)
-Offered test preparation for the SAT, GRE and GMAT

Projects

Body Fat Metric

-Cleaned and analyzed data from the CDC's National Health and Nutrition Examination Survey
-Evaluated the success of BMI and other models in predicting body fat percentage
-Used R to implement a Generalized Linear Models (GLM) approach to develop an alternative to BMI that better predicts body fat percentage

Personality Disorder Survey

-Worked with subject matter expert to design a questionnaire to identify personality disorders
-Used R to implement Principal Component Analysis (PCA) to identify which questions were informative and which were redundant

Education and Certificates

August 2016 - May 2017

The University of Texas - Austin, TX
Continuing Education - 3.88 Cumulative GPA
-Coursework in Financial Economics, Statistics and Computer Science.

August 2012 - October 2014

The University of Rochester - Rochester, NY
MA Economics
-Coursework in Mathematical Economics, Microeconomics, Macroeconomics and Econometrics
-Specialized in Game Theory

May 2012

The University of Texas - Austin, TX
Summer Statistics Institute - Division of Statistics + Scientific Computation
-*Multivariate Data Analysis Using R* - covered ANOVA, Linear Regression, Poisson Regression and Hierarchical models in R
-*Data Analysis Using SAS* - covered data manipulation, and t-tests, ANOVA, and Repeated Measures ANOVA in SAS.

August 2007 - May 2012

The University of Texas - Austin, TX
BA Economics with a minor in Liberal Arts Honors
BA Philosophy with Special Honors
Magna Cum Laude, Phi Beta Kappa, Phi Kappa Phi