

Wang Yao

Advanced Quantitative Science Intern

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A well-trained scientist in applied mathematics, passionate presenter and learner with extensive knowledge in nonlinear optimization algorithms for large scale statistical learning problems. Highly analytical, focused and personable, with broad interests in quantitative research, technology and consulting

WORK EXPERIENCE

Advanced Quantitative Science Intern

Novartis Pharmaceuticals Corporation - June 2014 to August 2014

Implemented a web application for clinicians to compare simulation results and test hypothesis

- Programmed the effective plotting interface for understanding and interpreting modeling work
- Applied quantitative methods and PK/PD models for dose escalation and selection in clinical trials
- Developed and designed web application with Linux, Apache, MySQL, PHP, Python and R
- Greatly reduced the overhead of communication between clinicians and pharmacometricians

Data Visualization Intern

Eli Lilly and Company - July 2013 to December 2013

Significantly advanced automation level of visualization tool to minimize the effort of maintenance

- Independently developed an automatic data acquisition program for five filtration experiments
- Fully utilized the advanced equipment and hence greatly reduced the cost of human resources
- Created manuals for both data visualization and acquisition applications to aid users and developers

Interoperability Center - January 2013 to June 2013

Captured and analysed complex information given by Coast Guard to properly frame the problem

- Established the mathematical model that generates various schemes with different parameters
- Presented the briefings to upper management monthly and drafted the guidance on the project
- Provided best sharing plan for U.S. Coast Guard to cover required mission hours under tight budget

Data Visualization Intern

Eli Lilly and Company - June 2012 to August 2012

Tested extensively the Bioprocess Data Collection System Data Mart(BDCSDM) with SQL

- Enhanced the Excel data visualization application by adding new practical features with VB.NET
- Upgraded the whole interface to be BDCSDM driven, more user-friendly and maintenance free
- Exploited Excel's programming graphical capability to deliver more information effectively

Project Consultant

American International Group, Inc - March 2012 to March 2012

March 2012

- Conducted statistical analysis with R on data of health insurance claims of college students
- Identified the patterns and described the trends in student health market for different states
- Worked closely with PPO director and supported underwriter to adjust pricing policy

EDUCATION

B.A. in Mathematics

Rutgers University

2006 to 2009

Ph.D. in Operations Research

Rutgers University - New Brunswick, NJ

2009

ADDITIONAL INFORMATION

SKILLS

- R, Python, Java, C++, Matlab, SQL, AMPL, MOSEL, PHP, VB.NET, Javascript
- Eclipse, Visual Studio, SAS, NONMEM, Spotfire, IPython, RShiny, SPSS, Minitab