Damian Andreas Hoye Graf von Schoenborn, MSc

Senior Data Scientist at Capital One

vonschoenborn@gmail.com

Summary

• Data professional with 5+ years experience in database design, machine learning, advanced analytics, and data visualization • Excels at converting complex data and analyses into actionable insights and meaningful stories • Passionate about implementing cutting-edge techniques

---

Skills & Expertise

Data Science
Big Data
Python
Apache Spark
Hadoop
D3.js
Tableau
Data-as-Product
Hive
Data Visualization
Machine Learning
R
Agile Development
Data Engineering
Artificial Neural Networks
Data Mining
SQL
Unix
Statistical Modeling
SAS
Data Analysis
Quantitative Analytics
Statistics
Mathematical Modeling
Business Analysis
Databases
Mathematica
Automated System Construction
Business Intelligence
Operations Research
RapidMiner
Leadership

Predictive Analytics
Project Management
Teradata
ETL
Microstrategy
MIS
Data Modeling
Decision Support Systems
MATLAB
Applied Mathematics
Decision Sciences
Data Integrity
Problem Solving
MapReduce
Web Development
Apache Pig
APIs
Design Thinking

Certifications

Tableau Desktop 8 Qualified Associate
Tableau Software   September 2014
Data Analyst Training: Using Pig, Hive, and Impala with Hadoop
Cloudera   June 2015
edX Verified Certificate for Introduction to Big Data with Apache Spark
edX   July 2015
edX Verified Certificate for Scalable Machine Learning
edX   August 2015
Big Data XSeries
edX   August 2015
AWS Technical Essentials
Amazon Web Services   August 2015
Cloudera Developer Training for Apache Spark
Cloudera   August 2015
Data Science Boot Camp
Metis   September 2015

Experience

Senior Data Scientist at   Capital One
April 2013 - Present (2 years 7 months)

   Leadership: * Formed and lead eDAPT: Engineering Data-as-Product Team (6 members) * Formed and lead
   a cross-functional Data Integrity Team (5 members) * Co-founded the Bank Tableau Help Desk * Tableau

Server Site Admin * Founding member of the Tableau Task Force, expanding Tableau adoption throughout the enterprise Accomplishments: * Developed data visualization and reporting tool consumed by 750+ associates up to EVP level * Head Subject Matter Expert (SME) on Customer Life Cycle; SME on Mobile Data * Developed automated data querying, transferring, and reporting solutions * Graduated from year-long Analyst Development Program * Optimize queries on massive data * Generated reports for CEO and Board of Directors * Created Hadoop+Python process for validating customers' email addresses Machine Learning Models Built: * Predicting customer attrition (SAS) * Customer Segmentation (SAS) * Paths customers take to developing Primary Banking Relationships (Python) * Merchants that have customers' card details stored (Python) Business Teams supported: * Horizontal Analytics * Marketing & Acquisitions * Customer Management * Overdraft Strategy

Data Analytics and Reporting Supervisor at U.S. Bank
August 2012 - April 2013 (9 months)

*Led transition to new database platform, including ETL design, data modeling and database design *Managed deployment of new Business Intelligence software *Data, workflow, and troubleshooting documentation *Gathered functional requirements and translated to technical requirements *Managed work request demand and various other project management tasks *Performed user acceptance testing *Validated data integrity and troubleshot issues *Oversaw report development and delivery covering: -- ~$1.6B/month in real estate collateral -- 11K loan applications per month -- 15 business line partners getting weekly and monthly reports -- 130 employees' performances -- Ad hoc and scheduled reports and dashboards -- 4000 appraisers and vendor management companies

Data Analyst at U.S. Bank
September 2010 - August 2012 (2 years)

*Sole data analyst for USB Lending Support Services (now Red Sky Risk Services), a subsidiary of US Bank (under Consumer Banking Risk Management), that fulfills the bank's appraisal orders for real estate based lending. *Designed and maintained databases *Analyzed appraisal data to: -- identify opportunities for operating efficiency improvement -- utilize the appraisers producing the highest quality work for reasonable costs and turn-times *Created automated process for assigning orders to processors *Developed automated system for identifying natural disaster incidents that may have damaged real estate *Designed county-level pricing model for various appraisal products *Produced reports for CEO, COO, and various division and business line heads. *Defined and performed systems analysis and development tasks to improve workflow and operating efficiency. *Prepared cost/benefit analyses *Designed company intranet site *Software design/testing *Analyzed vendor contracts

Referee at National Intercollegiate Soccer Officials Association
June 2009 - June 2011 (2 years 1 month)

Grade 7 Referee at United States Soccer Federation
February 1999 - June 2011 (12 years 5 months)

Training in the US Olympic Development Program Refereed several games for the U15 and U17 U.S. National Teams

Director of Operations and Accounting at   Schoch Hycoo Web Ventures, LLC

July 2007 - May 2011 (3 years 11 months)

Personally managed financial accounts, transactions, and tax matters; Designed and constructed websites for diverse applications

Student Government Cabinet Member at   Grinnell College

May 2008 - May 2010 (2 years 1 month)

Led a team of over 50 students, leading to an attendance increase of over 80% Appointed to serve on Cabinet by two administrations; Served as Chairman of the SGA Films Committee; Personally managed a budget of ~$27,000 per semester; Scheduled films and negotiated with distributors to purchase rights; Created and oversaw campus events;

35mm Film Projectionist at   Grinnell College

August 2006 - May 2010 (3 years 10 months)

Paid Intern at   McCrary Law Office, LLC

July 2008 - January 2009 (7 months)

Modernized the workplace through digitization of files; Utilized modern methods of attorney-client pairing; Specialized in Bankruptcy Law Spoke with current and potential clients on the phone and in person

Research Intern at   University of Missouri

May 2007 - August 2007 (4 months)

Optimized development of a novice nano-porous solution; Tested applications of the solution in fiber optics

Yearbook Photographer at   Grinnell College

August 2006 - May 2007 (10 months)

Dining Hall Worker at   Grinnell College

August 2006 - December 2006 (5 months)

Ward Attendant at   All Creatures Animal Hospital

March 2005 - August 2006 (1 year 6 months)

Independent Carrier at   Columbia Daily Tribune

January 2005 - December 2005 (1 year)

Research Intern at   University of Missouri

May 2005 - August 2005 (4 months)

Researched novice Lab-On-Chip processes for on-site DNA analysis; Results presented at the 11th annual meeting of the Institute of Biological Engineering and were the foundation of a doctoral dissertation

Education

University of Washington

Master of Science (MSc), Applied Mathematics, 2012 - 2015

Grinnell College

B.A., Political Science, Mathematics & Statistics, 2006 - 2010

Activities and Societies: Judicial Council, Student Government Association, Student Endowment Investment Group, SGA Films Committee, International Soccer Club

University of Peradeniya

ethnic conflict, politics, religion, 2008 - 2009

University of Missouri-Columbia

Philosophy, Mathematics, 2005 - 2007

Rock Bridge Senior High School

2003 - 2006

Courses

Master of Science (MSc), Applied Mathematics

University of Washington
Computational Finance & Econometrics
Scientific Computing
Nonlinear Dynamics & Chaos
Decision Analysis for Management Judgment
Vector Calculus and Complex Analysis
Computational Methods for Data Analysis
Methods for Partial Differential Equations

Philosophy, Mathematics

University of Missouri-Columbia
Differential Equations
Calculus (I, II, & III)

B.A., Political Science, Mathematics & Statistics

Grinnell College
Mentored Advanced Project

Orthogonal Polynomial IDs

Mathematical Modeling
Applied Game Theory
Abstract Algebra
Analysis
Markov Chain Monte Carlo
Probability and Statistics (I & II)

Mathematical Statistics

Linear Algebra
Applied Statistics

Symbolic Logic
General Physics (I & II)

Publications

Factored Matrices Can Generate Combinatorial Identities

Linear Algebra and its Applications   September 8, 2011

Authors: Damian Andreas Hoye Graf von Schoenborn, MSc, Marc Chamberland

  Acknowledged Contributor (non-author) Worked on the identities, proofs, and conjectures described in
  Section 5 of this paper, among others not listed.

High Throughput Microchip for Exocytosis Measurement With Automatic Cell Positioning

Institute of Biological Engineering   March 11, 2006

Authors: Damian Andreas Hoye Graf von Schoenborn, MSc, Deb Gangopadhyay, Shantanu Bhattacharya,
 Shubhra Gangopadhyay, Yuanfang Gao, Arnold Lubguban, Pascal Ruzigana, Kevin Gillis

  Presentation

Honors and Awards

Above & Beyond Award

Dean's List

Stipend

Center for American Progress

M.L. King Jr. Scholarship

Trustee Honor Scholarship

Robert S. McAlister Scholarship

AP Scholar Award

College Board

Columbia Soccer Club Award/Scholarship

Columbia Soccer Club

Member

National Honor Society

1st place science awards

Various Institutions

President's Education Award

George W. Bush

4th Place (Statewide) for Paper

National History Day, Missouri

Numerous other local and school awards

Silver Shield Award

March 2012

Damian's work to build meaningful analytics and reporting has proven to be a game changer for LSS. LSS is 'data rich' but with Damian's efforts we are now 'information rich'. He has created fantastic MIS and developed a predictive tool that LSS utilizes to predict what value changes to a process yield prior to installation. Without Damian we would not have achieved such vast improvement at LSS over the prior 8 months. Further, I want to recognize Damian's hard work to build innovative associate, vendor and performance scorecards that LSS utilizes to drive tangible improvements each and every week!

Gold Shield Award

January 2013

Damian von Schoenborn recognized the need for Lending Support Services to implement a more robust and user friendly business intelligence application to meet the needs of the business and its customers. Over the next 18 months, Damian worked closely alongside Brandon May and with MicroStrategy in defining business requirements and determining the best solution for installation. Furthermore, Damian also worked closely with FNC, Inc alongside the Lending Support Services projects group to define data fields, organize the data into tables, define entity relationships, construct data dictionaries, and design a process to allow for the exchange of data between FNC and MicroStrategy. Damian also played a primary role in the development of the ETL process for the data and the architecture of the tables and corresponding fields to allow Lending Support Services to begin construction reporting dashboards, reports, and begin moving into a more intelligent arena for data consumption. In addition, this worked helped fulfill a requirement issued by US Bank compliance in that Lending Support Services needed to move into a more robust reporting system that was more user intuitive and provided cleaner, more professional looking reporting. This project has sufficed that requirement. Damian is deserving of this award because of his intense work on this project, which went above and beyond normal expectations. He is learning two new data applications as well as a database language in order to utilize these new tools and has showed nothing but excitement and committment to this project as difficult as it has been at times. Damian has been a true asset to not only the Lending Support Services Project team, but to the business line as a whole because we now are in a position to provide sophisticated and intelligent business reporting to not only serve our own needs, but out customers and clients as well.

The Scientist Award

November 2013

Best innovator & problem solver for those expanding our thinking and our doing

The Get 'R Done Award

November 2013

They have done a great job supporting the UAT(User Acceptance Testing) and PPV(Post Production Validation) work for 360 Data Integration project. The testing effort for the Presentation Layer data in the past 4 months have been high in complexity and level of efforts due to the complex data transformation from source system to the target data model. These 4 associates have been working hard and diligently to ensure the transformation logic were being implemented accurately and the data being put into the Data Warehouse for analysis and reporting are of high quality. They each ran high volume of test cases, proactively communicated and reported issues and defects, and worked closely with EDS/IT to resolve

defects, and retest use cases until they have been proven meeting the data quality standards.   Their efforts have been and will be critical to the successful implementation of the 360 Data Integration project! Due to their efforts, we can be very confident about the 360 data quality in BDW, hence data we use to support MBR, business analytics and reporting.

Breakfast of Champions Award

November 2013

The Professor Award

March 2014

This month we're recognizing the individuals who worked to make the 360 BDW PL training a success. These individuals helped put the content together and served as instructors for training sessions in Wilmington, McLean, and Richmond. Thank you to all of them for their efforts!

The Partnership Award

May 2014

Post release of 360 data in TeraData to all users, Damian formed the Data Integrity team to investigate, collate and help resolve issues found with the data. He has done a tremendous job with understanding the issues and working with Data stewardship team to help in the prioritization with IT for fixing the same. Here is an example of the impact and recognitions of the work he has done in this effort: Damian has been a very knowledgeable SME on 360 data questions. He has a good understanding of how the 360 deposit business operates and how it translates into the data – specifically as regards to open/ closed and inactive accounts and Primary and Secondary account holders. He has been very helpful to us in getting DBDW data questions answered for us.

Interests

applied mathematics, game theory, decision theory, chaos theory, experimental mathematics, political theory, political economics, law, conflict mediation and resolution, social justice, investing/finance, security studies, intelligence analysis, international relations, film, and more

---

Damian Andreas Hoye Graf von Schoenborn, MSc

Senior Data Scientist at Capital One

vonschoenborn@gmail.com

Linked in.

10 people have recommended Damian

"I have worked with Damian since he joined capital one. His attention to detail makes him a great data analyst. His skill in tableau is commendable. He is fast learner and also always willing to help other colleagues in whatever ways he can. It was a pleasure working with him!"

— **Bindee Shrestha**, *Principal Data Analysis, Capital One*, managed Damian indirectly at Capital One

"I have worked with Damian on multiple projects in Capital One. He is very hard working and knowledgeable in his domain. He carries lot of passion for his work and is always eager to learn new things. He has solid knowledge of data mining, Tableau, SAS, R and also big data technologies. I hope we work together again. "

— **Shakti Shankar**, *Senior Data Analyst, Capital One*, worked directly with Damian at Capital One

"The two characteristics that stuck out to me the most in working with Damian were his eagerness to explore and master new technologies and his attention to detail. Damian became the lead SME for numerous new technologies/skills for our large team and shared knowledge in a clear and mentoring way. Damian also had a knack for catching subtle oversights when reviewing other team members' work. His understanding of the business and command of his, ever growing, skillset made him a vital and leading contributor on our team."

— **Michael Grounds**, *Senior Data Analyst, Direct Bank M&A (Business Model Innovation) Bank Customer and Decision Sciences, Capital One*, worked directly with Damian at Capital One

"Damian is an extremely intelligent and organized data manager. His ideas were critical to deriving meaning out of data. He enabled us to gain new insights into our operation through his work."

— **Todd Loudenslager**, managed Damian indirectly at U.S. Bank

"Damian was a great person to work with and an asset to the USB Lending Support Services group. He is very knowledgable in property appraisals and went above and beyond in providing our business users detailed analysis on internal and external operational performances and trends. He is also knowledgable in Business Intelligence and was critical to our success of establishing a new BI platform. Lastly, he was helpful in answering questions and providing valuable insight to how our data should be managed."

— **Danny Hong**, worked indirectly for Damian at U.S. Bank

"Damian is a brilliant analyst. He is always very [professional and completes his work with detail and the utmost of accuracy. He is always very personable and is a pleasure to work with."

— **Tony Pistilli**, worked with Damian at U.S. Bank

"I worked with Damian at US Bank and during that time he helped me automate the way I ran financial reports. Not only did he find solutions for the problems that occurred in the payment process system, he also went above and beyond to help coach and train me so that I would be able to learn to do it myself. Damian is no doubt a great asset to any organization he works in with his great ability to problem solve efficiently and quickly."

— **Mey Chau, MBA**, worked directly with Damian at U.S. Bank

"Damian was truly a pleasure to work with. In his time as Grinnell College Student Government Association Films Chair he consistently demonstrated a solid work ethic, strong strategic planning, effective management of his team and phenomenal mediation skills. Beyond his specific duties as Films Chair, Damian regularly took the initiative to formulate creative solutions to campus-wide problems, making him an invaluable member of SGA Cabinet. What really makes Damian stand out is his reliability- once he has committed to a project you can rest assured that he will see it through. Damian was a dedicated, perceptive and dependable member of our team, and is sorely missed. He will be an asset to any employer lucky enough to snag him."

— **Emily Wax**, managed Damian indirectly at Grinnell College

"Damian was a very effective SGA Films Chair at Grinnell College. It was a pleasure working with him."

— **W. Houston Dougharty**, worked directly with Damian at Grinnell College

"I've known Damian for coming on 15 years. He has grown into an exceptional young man. I have encouraged and monitored his career growth in soccer refereeing. When I needed staff work done in my office, I sought him out to work during college breaks. I'll take him for as long as he wants to work for me."

— **Michael McCrary**, was Damian's client

Contact Damian on LinkedIn