

Jeffery Painter | Curriculum Vitae

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"You can have data without information, but you cannot have information without data." - DKM

Summary

Leader in analytics, ontologies, and software design seeking opportunities to pioneer innovation.

Experience

FL60

Cambridge, MA

Senior Principal Scientist

2019–Present

- *Disease-modifying therapeutics through transformational science* FL60 is identifying novel therapeutic strategies targeted to responder patient populations for various complex diseases. Powered by the latest advancements in computational and experimental biology, we are evolving the medical paradigm for complex disease. FL60 was founded by Flagship Pioneering in Flagship Labs, the firm's innovation foundry, and is located in the heart of Cambridge, Mass

JiveCast

Raleigh, NC

CEO And Founder

2016–Present

Analytics and Consulting

- *Deep Learning Methods Development* - Project with Anexinet - Assisted in developing Recurrent Neural Nets to assist in the automatic identification of Adverse Events in call center data. Implementation developed in Java using DeepLearning4j framework.
- *Drug to Indication Maps* - Project with HAPi, LLC to develop a drug to indication mapping using custom built Java source and open knowledge sources (UMLS, etc).
- *Social Media for Pharmacovigilance* - Subcontractor to GlaxoSmithKline : Provide expert consulting and programming for delivering key insights from social media analytics. Projects included crowdsourcing, Java development for UI and data analysis

GlaxoSmithKline

Research Triangle Park, NC

Director Medical Advanced Analytics - US Medical Affairs

2006–2016

Deployed Innovations:

- *Medical Insight Explorer* - Web application and text analytics framework developed to help automate text classification and clustering for topic and trend analysis on unstructured voice of

the customer feedback for US Medical Affairs. Enabling text analytics for a non-technical user base of 150 employees.

- *Insight Explorer for Social Media* - Work flow management system for the annotation of social media data for safety and pharmacovigilance - over 50,000 social media posts reviewed by the GSK safety listening laboratory leading to an improved understanding of the use, abuse, and benefits of marketed drugs.
- C#/.Net Predictive Modeling Engine deployed in CareTriage® which executes patient risk models in real time using random forest, LASSO, and inverse logit regression. Currently active in 2 state medicare management systems.
<https://www.communitycarenc.org/media/files/care-triage-announcement.pdf>
- *CodeSlinger* - Biomedical terminology code management tool for epidemiology and observational data analytics.
- *BRAT* - Benefit Risk Analysis Toolkit - Collaboration between GSK, J&J, and AstraZeneca to standardize statistical analytical methods across the industry.
- Constructed the foundational terminology mappings enabling SafetyWorks and OMOP to support disparate data sources for unified statistical analysis.
<http://www.ubc.com/tags/safetyworks>, <http://omop.org>

Kiasoft, Inc

Cary, NC

Founder

2002–2004

- Developed SmartOrder, a web based fulfillment and inventory management system for LogosDirect.com.
 - Enabled real time management and predictive modeling for distribution of inventory to branches
 - Deployed in 2003 and still in use, having completed over 100,000 orders.
- Elected as an Apache community contributor to the Turbine top level project.

MCI Worldcom

Cary, NC

System Administrator

2000–2002

- Supported 150+ software developers who were responsible for global network provisioning services. Administered Sun Solaris, AIX, DB/2 and Oracle systems.
- Administrator for the Sun E10000 servers running WebLogic J2EE platform and Oracle databases.

SmartStart NC

Raleigh, NC

Programmer

1999–2000

- Developed administration system for statewide financial managers written in Perl & PostgreSQL.

American Social Health Association

RTP, NC

Programmer

1999

- Supported phone, network and servers for various CDC funded call centers.

UNC-TV

System Administrator

RTP, NC

1998

- Supported phone, network and servers for television production and administrative use.

Osborne Computers

Systems Integrator

Dalton, GA

1996-1997

- Administered BSD web servers, RADIUS dial-up service.
- Built custom PC desktop and networks for local clients.

Professional Development

- Building and Solving Optimization Models with SAS/OR™
- Data Mining with WEKA, Offered by University of Waikato
- Vaadin Fundamentals and Vaadin Advanced training
- First Line Leader course for new managers at GlaxoSmithKline
- Sun Certified administrator for Solaris 2.6/8.x
- Oracle DBA training track

Honors & Awards

2019: ASF Member

- Voted in as a member of the Apache Software Foundation for contributions to the Apache Turbine project over the past 16 years.

<https://www.apache.org/foundation/members.html>

2015: Global Medical Excellence Award - Gold Winner

- *"Voice of the Patient: Project CRAWL - Contextualization of Real World Drug Use Through Social Listening"* The aim of this project is to deliver a streamlined capability for using social media to enhance pharmacovigilance activities. The team delivered on several new capability enhancements to our safety organization, bringing the voice of the patient to the company.

2015: Global Medical Excellence Award - US Finalist

- *"Voice of the Patient: Project Insight Explorer - Fueling faster medical insights through the use of text analytics."* The team led this innovative solution to improve synthesis and delivery of high quality insight for Voice of the Patient by replacing manual data processing with an automated process using text analytics. This effort provided more robust and reliable insights in a timely manner to the matrix teams.

2015: GSK Bronze Award

- *"Jeff's ability to work across boundaries to bring Insight Explorer to Canada will have significant impact on how Canada analyzes mVoC data. Without hesitation, Jeff stepped up to meet our needs and helped us navigate the IT process so we can utilize Medical Insight Explorer."* – Matthew Swash

2013: Exceptional Science Award

- *"For developing computational tools for converting observational data for retrospective studies in Safety and Health Outcomes Research utilizing ontologies and high performance computing. Jeffery Painter is a key, highly regarded scientist in the area of high performance computing in*

observational data and has led and delivered projects for multiple teams throughout R&D." – Alan Menius

2011: Exceptional Science Award

- The Exceptional Science Award is given for outstanding contributions to research projects internally at GlaxoSmithKline. I was granted this award for my research into advancing the capabilities of automated ontology mapping through developing the use of a semantic measure of proximity.

Patents

Aug 12, 2015: Application Filed

- Electronically Predicting Corrective Options Based on a Sensed Physiological Characteristic. Inventors: Troy Trygstad, Jeffery L. Painter, Jr., and Alan Menius

Education

NCCU School of Law

JD, Concentration in Intellectual Property

Durham, NC

2011–2015

NCSU

Bachelor of Science, Applied Mathematics, Cum Laude

Raleigh, NC

2007–2009

NCSU

Bachelor of Science, Computer Science, Cum Laude

Raleigh, NC

2005–2007

Statistics Minor & Cognitive Science Minor

Technology Skills

- Primary Languages: Java (Lambdas and Streams), Python, L^AT_EX, XML/HTML, JavaScript
- Secondary Languages: Perl, C/C++, x86 assembly
- Statistics & Data Mining: DL4j, WEKA, R, JMP, SAS (EM, Visual Analytics, Text Miner)
- Databases: MySQL, PostgreSQL, MS SQL Server, Oracle, Teradata, Apache HBase, Berkeley DB
- Frameworks: Apache Turbine, Vaadin, Spring, d3.js, jQuery
- Containers: Apache Tomcat, jetty, WebLogic
- Build Tools: Maven, Ant, Eclipse, JRebel, JUnit, SVN, Git, Jenkins
- NLP: R tm, Python Textblob, Python nltk, Java OpenNLP, UMLS MetaThesaurus & MetaMap
- Preferred environment: Ubuntu Linux, bash shell and Eclipse

Publications

Publications available for review at <http://javastats.com/about.html>

1. Kim Gemzoe, Jeffery L. Painter, Jeanne M. Pimenta, Greg Powell *Crowdsourcing as a Novel Method to Assess the Impact of Drug Exposure on Belimumab Pregnancy Registry Enrollment*. ICPE Poster Presentation, Philadelphia, PA, Aug 24-28, 2019.
2. Jeffery L. Painter *A Day in the Life of a Data Scientist: Modeling the Impact of Subscriber Attrition with Variability*. <http://bit.ly/2rvbfri> Dec 13, 2017.
3. Alex Gartland, Jeffery L. Painter, Tim Casperson and Greg E. Powell *Leveraging Crowdsourcing to Help Classify Social Media Data for Medical and Patient Safety Insights*. AMIA Poster Presentation, Washington, DC, Nov 04-08, 2017.

4. Michele Thomas, Amy Curry, Jeffery L. Painter, Arhooj Akhtar, Lorrie Schifano, and Greg E. Powell *Case Study: Computing Complexity Scores to Identify Patients of Interest from Inspire.com Forums for Safety and Beyond*. DIA Poster Presentation, Chicago, IL, June 20, 2017.
5. Laurie S. Anderson, Heidi G Bell, Michael Gilbert, Christina Winter, Monica J Barratt, Beta Win, Jeffery L Painter, Christopher Menone, et. al. *Using Social Listening Data to Monitor Misuse and Nonmedical Use of Bupropion: A Content Analysis*. JMIR Public Health Surveillance, Feb. 2017.
6. Jeffery L. Painter *On the Perils and Pitfalls of PRR Analysis*. JSM, Chicago, IL, July, 2016.
7. Yingzi Xu, Jeffery L. Painter *Application of Classification and Clustering Methods on mVoC (Medical Voice of Customer) data for Scientific Engagement*. JSM, Chicago, IL, July, 2016.
8. Timothy A. Casperson, Jeffery L. Painter, and Juergen Dietrich *Strategies for distributed curation of social media data for safety and pharmacovigilance*. Proceedings of the International Conference on Data Mining, DMIN 2016, July 27, 2016, Las Vegas, Nevada, USA, CSREA Press
9. Gregory E. Powell, Harry A. Seifert, Tjark Reblin, Phil J. Burstein, James Blowers, J. Alan Menius, Jeffery L. Painter, Michele Thomas, Carrie E. Pierce et. al. *Social Media Listening for Routine Post-Marketing Safety Surveillance*. Drug Safety 2016. DOI: 10.1007/s40264-015-0385-6
10. Suzie Seabroke , Gianmario Candore, Kristina Juhlin, Naashika Quarcoo, Antoni Wisniewski, Ramin Arani, Jeffery Painter, Philip Tregunno, G. Niklas Norén, and Jim Slattery *Performance of Stratified and Subgrouped Disproportionality Analyses in Spontaneous Databases*. Drug Safety 2016. DOI: 10.1007/s40264-015-0388-3
11. Michele Thomas, MBA, Bradley Turnbull, PhD, Jeffery L Painter, BS, JD, Rachael L DiSantostefano, PhD and Greg Powell, PharmD, MBA. *What are People Talking About? Medication Discussions on Social Media*. ICPE, Boston, August 25, 2015, Poster session.
12. Greg Powell, James Blowers, Heidi Bell, Michele Thomas, Jeffery Painter, JD, Nabarun Dasgupta. *Comparison of Events in Spontaneous Adverse Event Reports To Events Discussed Within Context of Drug Use on Facebook and Twitter*. ICPE, Boston, August 25, 2015, Poster session.
13. Rachael L DiSantostefano, Jeffery L. Painter, Michele Thomas and Greg Powell *Safety Assessment and Selection Bias: Who uses social media to communicate about medications?*. ICPE, Boston, August 25, 2015, Poster session.
14. Matthew R Nelson, Hannah Tipney, Jeffery L Painter, Judong Shen, Paola Nicoletti, Yufeng Shen, Aris Floratos, Pak Chung Sham, Mulin Jun Li, Junwen Wang, Lon R Cardon, John C Whittaker and Philippe Sanseau. *The support of human genetic evidence for approved drug indications*. Nature Genetics, June 2015.
15. Daniel Parks, Xiwu Lin, Jeffery L. Painter, Jie Cheng, Christine M. Hunt, Colin F. Spraggs, Jeanenne J. Nelson, Lloyd Curtis, J. Alan Menius and Kwan R. Lee. *A proposed modification to Hy's law and Edish criteria in oncology clinical trials using aggregated historical data*. Pharmacoepidemiology and Drug Safety, Volume 22, Issue 6, pages 571 - 578, June 2013
16. Jeffery L. Painter and Greg Powell. *Performance of Observational Screening by System Organ Class*. Pharmacoepidemiology and Drug Safety, Vol. 21, ICPE 2012 Poster Presentation
17. Daniel Parks, Xiwu Lin, Jeffery L. Painter, Jie Cheng, Christine M. Hunt, HA Stirnaedl-Farrant, J. Alan Menius and Kwan R. Lee. *Validation of multivariate outlier detection analyses used to identify potential drug-induced liver injury in clinical trial populations*. Drug Safety, Volume 35, Issue 10, pages 865 - 875, Oct 2012
18. Cheng J, Greshock J, Painter J, Lin X, Lee K, Zheng S, Menius A. *Predicting breast cancer chemotherapeutic response using a novel tool for microarray data analysis*. Journal of Integrated Bioinformatics, Volume 9, Issue 2, pages 209, August 2012

19. Jeffery L. Painter. *An Imaging Framework for the Analysis of Longitudinal High-Dimensional Data*. International Conference on Image Processing, Computer Vision, and Pattern Recognition, IPCV 2012, July 15-19, 2012, Las Vega, Nevada, USA, CSREA Press
20. Jeffery L. Painter. *Enhanced Biomedical Taxonomy Mapping Through Use of A Semantic Measure of Proximity*. International Conference on Knowledge Engineering, IKE 2011, July 2011, Las Vega, Nevada, USA, CSREA Press
21. Reisinger SJ, Ryan PB, O'Hara DJ, Powell GE, Painter JL, Pattishall EN, Morris JA. *Development and evaluation of a common data model enabling active drug safety surveillance using disparate healthcare databases*. Journal of American Medical Informatics Association, Volume 17, Issue 6, pages 652-662, Nov-Dec 2010
22. Jeffery L. Painter. *Containing the Cloud: Security Issues in a Large Scale Observational Pharmacovigilance Research Project*. to be presented at the International Conference on Security and Management, SAM 2010, July 12-15, 2010, Las Vega, Nevada, USA, CSREA Press
23. Jeffery L. Painter. *Towards Automating an Inference Model on Unstructured Terminologies: OXMIS Case Study*. Advances in Computational Biology, Vol. 680, Ed. Arabnia, Hamid R., Springer-Verlag, 2010
24. Jeffery L. Painter and Natalie L. Flowers. *CodeSlinger: An Interactive Biomedical Ontology Browser*. Artificial Intelligence in Medicine: 12th Conference on Artificial Intelligence in Medicine in Europe, AIME 2009, Verona, Italy, July 18-22, 2009, Proceedings; Springer, 2009
25. G.H. Merrill, P.B. Ryan, and J. L. Painter. *Applying a UMLS/SNOMED-based Drug Ontology for Observational Pharmacovigilance*. IDAMAP (Intelligent Data Analysis for bioMedicine and Pharmacology), Washington, DC, November 7, 2008.
26. P.B. Ryan, G. H. Merrill, and J. L. Painter, *Defining medical conditions by mapping ICD-9 to MedDRA: A systematic approach to integrating disparate observational data sources for enabling enhanced pharmacovigilance analyses*, Drug Information Association, Boston, 2008, (Poster session.).
27. G. H. Merrill, P. B. Ryan, and J. L. Painter, *Using SNOMED to Normalize and Aggregate Drug References in the SafetyWorks Observational Pharmacovigilance Project*, KR-MED, Phoenix, AZ 2008, (Poster session.).
28. J. L. Painter, *A Mapping Between SNOMED-CT and the OXMIS Coding Scheme*, KR-MED, Phoenix, AZ 2008, (Poster session.).
29. J. L. Painter and G.H. Merrill. *Introduction to the UMLS for Text Analytics*, Technical Briefing for NC State University's Advanced Analytics Graduate Program. Presented September 12, 2007.
30. Kristoph Kleiner, Gary H. Merrill and Jeffery L. Painter. *Inter-translation of Biomedical Coding Schemes Using UMLS*. Proceedings of the 2006 AAAI Fall Symposium on Semantic Technologies.

Interests

- Bridge
- Reading
- Patent Law
- Cooking