

Ben Bubnick

DATA SCIENCE · DATA CURATION · DATA INTEGRATION

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Summary

Database Design	ETL/EDW design with SSIS/SQL/T-SQL/PostgreSQL in CI/CD pipeline
SME/Utility Roles	AI & Machine Learning, Data Curation/Wrangling & Integration
Big Data Platform	Python, Pig, Ruby, kafka, and Hive/Impala on Hadoop & Azure
Health Care Analytics	HEDIS Measures & Tailored Analytics from EMR, HL7, 837, CMS, etc.
Demonstrated Success	Lab Services Award, Eminence and Excellence Award, Honey Badger

Experience

Merative

Jul. 2022 - Present

DATA SCIENTIST

Python, Azure, Postman

Technical lead on the delivery of large & complex AI and Cognitive led transformation programs and works with Merative & Partners to optimize tools and delivery methods.

- Led HIPAA patient deidentification project from 200+ million individual patients for content analytics
- Created testing framework for ETL & implementation processes on new data platform

IBM

Jun. 2015 - Jul. 2022

ADVISORY DATA SCIENTIST

Python, GoLang, Azure, Docker, SQL/PostgreSQL, Tableau

Technical lead on delivery of Cognitive & AI led programs using diverse data sources, such as electronic health record data, insurance claims data, scheduling and financial data, social determinants of health data.

- Created machine learning Covid-19 tool that reduced need for hospitalization identification
- Led delivery on tailored analytics and reporting project for client administrative data
- Developed data migration validation analysis on 150+ billion patient records
- Developed surgical smart case card using combined CNN/RNN model

Dec. 2020 - Nov. 2021

Promotion SENIOR DATA CURATION ARCHITECT

Gradle, Python, Hive/Impala, Spark, kafka, Kibana, SQL

Senior member of Data Onboarding & Governance for integration of healthcare data and enrichment of metadata. Configuration of data models, analytics, reports, and visualizations.

- Developed clinical data integration of 100+ billion structured & semi-structured records
- Developed topic modelling project on nearly 6 million semi-structured provider notes data
- Curated 25 pages of AI workflow documentation and mentored new hires in AI tuning process
- Created AI Surgical Scheduling Optimization tool currently evolving into new offering

Nov. 2017 - Dec. 2020

DATA CURATION ARCHITECT

Ruby, Pig, SQL/SSIS/Oracle, Hive/Impala, kafka, Kibana

Lead member of Data Onboarding & Governance, member of the Watson Foundation for Health Solutions Architecture team.

- Managed multi-org enterprise integration with over 70 interconnected data sources
- Developed new data validation and review process that reduced total rework by 25%
- Reduced mapping rework by 45% with through new knowledge-driven initiatives

SOFTWARE DEVELOPER

Sep. 2016 - Nov. 2017
Ruby, Pig, Perl, Jenkins, SQL/mysql/Oracle, DB2, PL/SQL

Technical delivery lead for client integrations which has included the ordering, installation, and configuration of required hardware, including VPN devices to support client integrations.

- Reduced time spent on knowledge transfer by ~80% by reorganizing project documentation
- Eliminated need for a \$30,000 annual contract by developing data curation tool
- Reduced cost-per-hire by \$5,210 by re-developing education program

DATA SCIENTIST

Nov. 2015 - Sep. 2016
Ruby, Pig, Jenkins, Hadoop/HDFS/CDH, SQL/mysql/Oracle

Data Ingestions, pre-analytic enrichments, analytic augmentation, data governance, and implementation of assigned client integrations.

- Managed team of 12 remote data science contractors for 36 integration projects
- Created over 125 new knowledge base articles, making up 30% of the team's online content
- Developed automated data integration tool to cut out 28% unnecessary development time

DATA SCIENTIST CONSULTANT

Jun. 2015 - Nov. 2015
Ruby, Pig, React, NodeJS, JavaScript, SQL, Oracle, Jenkins

Identified clinical, financial, and operational data elements within different health provider systems to develop data transformations and providing meaning to the data.

AmTrust Financial Services

SOFTWARE ENGINEER

Mar. 2014 - Jun. 2015
VB.NET, ASP.NET, C#, CSS, Javascript, HTML5, SQL, PL/SQL

Created multi-tier MVC components and web forms for commercial insurance policy generating software.

PPG Industries

COLOR SCIENTIST

Apr. 2012 - Jun. 2013
VB.NET, C#, SQL, C++, FORTRAN

Developed radiative transfer models, spectroscopic profile analysis, and cross-instrument correlation software.

University of Cincinnati

RESEARCH ASSISTANT

Sep. 2006 - Sep. 2010
FORTRAN, IRAF, IDL, JMP, LabVIEW, Maple, Mathematica, PDL

Gathered data in the short-wavelength, crossdispersed mode SXD on a 0.8–5.4 μm spectrograph at NASA IRTF.

Volunteer

CSforAll

INSTRUCTOR

Oct. 2018 - May. 2019

Our goal was to provide computer science instruction in all of the District's high schools, with a special emphasis on students who do not have access to a computer or a stable Internet connection at home.

HIT in the CLE

COACH

Mar. 2017 - Mar. 2019

We were using a data science competition to educate students understand the potential of a career in health information technology and to assist IT companies in Northeast Ohio in developing a talent pipeline.

Code for America

ETL GUILD

Jan. 2015 - Jun. 2015

The initiative was brought about to apply data science tools to improve and expand public record access.

T.C.P. World Academy

TUTOR

Sep. 2008 - May. 2009

Our goal was to teach students how to understand the value of their learning experience and becoming academically involved by participating in society simulation activities for higher learning.

Awards

2018 - 2022	Gold Champion , For 1,477 classroom hours and earning 43 digital credentials	IBM
2018	Lab Services Award , For coordinating internal teams to deliver on time	IBM
2017	Eminence and Excellence Award , For developing a new data curation tool	IBM
2012	Color Lab Automation Award , For expanding data collection and analysis reports	PPG Industries
2010	Mary J. Hanna Fellowship , For STEM students pursuing research-based Masters	UC

Talks

AI Hackathon 2020: Surgery Scheduling Optimization	Dec. 2020
<i>"An algorithm uses past utilization and current waitlist info to predict surgery duration.</i>	IBM
REACH Initiative: IBM Watson Care Insights	2019
<i>Analyze patient records and real-time data via HL7 feeds, integrate insights into physician's EHR workflow.</i>	IBM
Content & Data Analytics Learning Exchange	2018
<i>Introduction of implementation of machine learning algorithms using real-world health data analytics.</i>	IBM
2018 Innovation Research Interchange Fall Networks Conference	Sep. 2018
<i>Using NLP to extract insight from unstructured data and transform it from a data lake.</i>	IRI
Cross Team Training Series	2016
<i>A 7-part series on using Hadoop for data ingestion that shows advantages of data lakes.</i>	EXPLORYS

Publications

Surgical Scheduling Optimization and Procedure Duration Prediction ^a	Dec. 2020
<i>Improvement on traditional fixed ratio methods for total procedure time estimation.</i>	IBM
Process and Requirements for CCD Data Integration	Oct. 2017
<i>Processes and requirements for overcoming the many difficulties with CCD data curation.</i>	IBM
AI Paint Formula Prediction from Spectroscopic Measurements ^b	May. 2015
<i>Naive bayesian color and effects matching algorithm of complex automotive paint formula.</i>	SHINYAPPS.IO
Characterization of Surface Coatings using RT Models for Color Matching	Feb. 2013
<i>Approximation of Chandrasekhar RT model for atmospheric scattering applied to color matching.</i>	USPTO
Massive Stellar Clusters in the Disk of the Milky Way Galaxy ^c	Dec. 2010
<i>Spectroscopic and Photometric analysis of two open clusters in the galactic plane.</i>	OHIOLINK ETD
Near-Infrared Spectroscopy of Candidates Members of the Galactic Cluster [BDS2003] 107	Feb. 2008
<i>Near-infrared classification spectra for candidate members and comparative 2MASS photometry.</i>	PASP
A Novel Method for Low-Toxic Photo-Etch Printing ^d	May. 2003
<i>Application of aquatint etching techniques to photo-etch procedures.</i>	MAPC

Education

2022	Certification , Data Science ^a	IBM
2015	Certification , Data Science ^b	Johns Hopkins University
2010	Master of Science , Astrophysics ^c	University of Cincinnati
2004	Bachelor of Fine Arts , Printmaking ^d	Ohio University