Ben Bubnick

Analytics Training Specialist · Adjunct Professor

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"10+ years experience physics lecturer with strong academic and teaching background, possessing solid experience managing a wide variety of training programs. Noted history of demonstrating excellent teaching that fosters students' critical skills leading to significantly improved performance. Comfortable with all teaching environments and able to demonstrate a vast range of other transferable skills and expertise."

Summary

Academic Subjects	Algebra & Calculus based Physics, Astronomy, General Physics Lab, "Physics for Poets"
Core Competencies	Lesson Plan Design, Effective Assessments, Traditional & Non-Traditional Teaching Strategies
Professional Summary	Data Science, Data Curation, Analytics & Machine Learning Training, Scientific Analysis
Demonstrated Past Success	Subject Matter Expert, Lab Services Award Winner, Eminence and Excellence Award Winner

Experience

Data Integration Training Specialist — *IBM*

Watson Heatlh — *Sep. 2016 - PRESENT*

Project Management for technical training, providing both basic and advanced software training, along with consulting through cross-team and other training/presentation settings. Designed and managed the internal training, an effective onboarding program, and cross-team development training. Focus on HDFS technologies: Pig, Hive & Impala, Ruby & Java.

- Eliminated average of 3 weeks from employee onboarding process
- Reduced cost-per-hire by $5,210 by re-developing education program
- Spearheaded new-hire mentoring program that led to ≈4,500 increase in total billable hours
- Trained 60% of current data curation teams, including 2 managers
- Created over 125 new knowledge base articles, making up 30% of the team's online content
- Earned 7 badges during IBM Re-skilling Initiative and logged over 200 hours of training in 2018

Adjunct Professor — *Lorain County Community College*

Dept. of Math & Science — *Aug. 2016 - May. 2019*

Developed curricula and lecturer in survey astronomy, and lecturer in introductory physics laboratory. Fostered and encouraged critical thinking and subject synthesis, relating astronomy topic to society at large. Wrote concise laboratory instruction manuals, trained in precise measurement techniques & data analysis using DataStudio, and coordinated analysis documentation.

- Exceeded feedback evaluation goals by an average of 16% in 2017 and by 17% in 2018
- Tracked a 28% reduction in student confusion by reorganizing online education materials
- Uploaded over 700 hours of lecture material for convenient consumption
- Employed Just-in-time-teaching method for failing students yielded average 18% grade increase by end of term.
- Created laboratory lectures based on Interactive Lecture Demonstration (ILD) method
- Encouraged Peer Instruction & ILD methods during physics lab when addressing student confusion

Data Scientist — *IBM*

Watson Health — *Jun. 2015 - PRESENT*

Lead member of Data Onboarding & Governance, member of the Watson Foundation for Health Solutions Architecture team. Configuration and development of software necessary to support data analytics and machine learning classificiation algorithms.

- Reduced mapping rework by 45% with through new knowledge-driven initiatives
- Developed new data validation and review process that reduced total rework by 25%
- Went above my duties to close project documentation gaps, organizing more than 100 past projects
- Reduced time spent on knowledge transfer by ≈80% by reorganizing project documentation

Adjunct Professor — *Miami University*

Physics Department — *Aug. 2010 - Jun. 2011*

Developed curricula in "Physics for Poets" style course and another in introductory astronomy.

- Developed curricula in introductory physics and astronomy courses to 100+ students
- Composed technical presentations of complex physical concepts for major and non-major students

Adjunct Professor — *Cincinnati State Community College*

Physics Department — *Feb. 2011 - Jun. 2011*

Designed a technical physics curriculum for remedial students–an introduction to introductory physics.

- Trained and led students in completing technical reports
- Wrote concise laboratory instruction manuals and coordinated data analysis documentation

Talks

IBM Watson Care Insights Reach Initiative — *Watson Health*

Trainer — *Apr. - Sep. 2018*

- Watson Care Insights aims to analyze longitudinal patient records and real-time data points through HL7 feeds to provide practitioners insights into the patient's data. Watson Care Insights seeks to overcome physician-reported challenges incorporating shared decision making technology into their direct patient interactions, and address these challenges by integrating within the physician's workflow in the electronic health record system.

Content & Data Analytics Learning Exchange — *Watson Health*

Peer Presenter — *Apr. & May 2018*

- Bayesian Statistics using the Monty Hall problem example
- Naive Bayesian classification for patient matching
- Splines regression for population vitals ditributions

2018 IRI Fall Networks Conference — *Innovation Research Interchange*

Presenter for the Information Services/Information Technology Network Talks — *Sep. 2018*

- Cognitive computing can use NLP to extract insights from the unstructured data that holds most of the relevant information, but also it can also perform the necessary transformation accurately at the earliest stages of the data integration pipeline. Combined with the scalability and speed of the data lake architecture, this and other cognitive tools can effectively close the gaps on some of the most formidable flat file curation challenges.

Cross Team Training Series — *Explorys*

Lead Presenter for the METL Group — *Sep. 2016*

- Seven part series in data ingestion approach using the Hadoop software framework. Data can be aggregated much more quickly and cost-effectively using a data lake framework than in traditional data warehouses, because of the speed and low-cost of massively parallel computing. All data is stored in the data lake in its native format until it is needed, and each data element has a metadata tag for easy retrieval. As a result, responses are ad-hoc rather than predetermined, and reports based on new requirements can be delivered in days or weeks rather than months or years.

Writing

Process and Requirements for CCD Data Integration — *IBM*

Lead Integration Developer — *Oct. 2017*

- Technical paper on processes and requirements overcoming the many difficulties with flat file data curation of CCDs.

Characterization of Surface Coatings using Radiative Transfer Models for Color Matching — *PPG*

Radiative Transfer Physics — *Dec. 2010*

- Approximation of Chandrasekhar radiative transfer model for atmospheric scattering is applied to color matching. (U.S Patent Application)

Massive Stellar Clusters in the Disk of the Milky Way Galaxy — *OhioLINK ETD*

Graduate Researcher — *Dec. 2010*

- Using spectroscopic and photometric analysis of two open clusters to determine the structure of the plane of the Milky Way Galaxy.

Near-Infrared Spectroscopy of Candidates Members of the Galactic Cluster [BDS2003] 107 — *PASP*

Undergraduate Research Assistant — *Feb. 2008*

- New near-infrared classification spectra for nine candidate members and comparative 2MASS photometry for several cluster members.

Volunteer

2018/19	**Instructor,** Computer Science supplemental high school course hosted by BioEnterprise	*CSforCLE/CMSD*
2018/19	**Volunteer Coach,** Data Science High School Competition hosted by Case Western Reserve University	*HIT in the CLE*
2015	**ETL Volunteer,** RTAHeatMap project for Open Cleveland, a Code for America Brigade	*Open Cleveland*
2008/09	**Tutor,** On-site after school tutoring for T.C.P. World Academy	*Community School*

Education

Master of Science in Physics — *University of Cincinnati*

McMicken College of Arts and Sciences — *2008 - 2010*

- Thesis - Massive Stellar Clusters in the Disk of the Milky Way Galaxy

Bachelor of Fine Arts in Printmaking — *Ohio University*

College of Fine Arts — *2000 - 2004*

- Thesis - A Novel Method for Low-Toxic Photo-Etch Printing