# Jacob Sosine M.A., M.B.A., B.C.B.A.

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### WORK EXPERIENCE

Oct. 2020- Current Data Analyst

Behavioral Health Center of Excellence

Los Angeles, CA

- Use python to automate the primary business product; reducing product creation time from 35hrs to 15min.
- Create machine learning pipelines to develop predictive models for sales and accreditation of organizations.
- Present data at regional conferences on employee satisfaction using open text fields (NLP Analysis).
- Create ETL pipelines incorporating different API's to pre-process and upload data to Salesforce.
- Analyze and interpret ABA claims data from different payors to help establish value-based care frameworks.
- Build Salesforce custom objects and workflow rules to maximize efficiency around the business process.
- Use DataLoader and OpenRefine to clean and bulk upload data to Salesforce.
- Mentor colleagues in the development of python skills using pandas, seaborn, matplotlib, and other packages.

# Asset Management Analyst

June 2019 - Aug 2019

January Capital Advisors

San Francisco, CA

- Create data visualization for public-facing presentations used for advising and transactional transparency.
- Presented the viability and training costs for dashboarding solutions to the executive team.
- Create dashboards on key performance indicators for the executive team using Tableau.

# **Clinical Supervisor**

Oct. 2018 - Oct. 2020

Speech Pathology Group

Walnut Creek, CA

- Interpret and present data to guide decision making for stakeholders within interdisciplinary teams.
- Design and implement single subject research designs to continuously identify intervention effects.
- Oversee the provision of behavior analytic services across school districts.
- Present on viable entrance strategies and ABA market conditions to venture capital investors.

**Regional Director** June 2017 - Oct. 2018

STE Consultants

Walnut Creek, CA

- Supervise 20 direct reports and 120 indirect reports across the East Bay Area.
- Audit key performance indicators across clinical and business metrics.
- Design performance-based bonus system to align business goals with employee success.
- Automate administrative processes to increase efficiency and reduce errors in caseload information.

**Clinical Director** July 2015 - June 2017

STE Consultants

Berkeley, CA

- Assess and measure behavior to develop meaningful and realistic treatment options for children with Autism.
- Interpret and analyze data collected to assess treatment outcomes for individuals and families.
- Provide training and support to employees through instructions, modeling, rehearsal, and feedback.

### **EDUCATION**

May, 2020 Saint Mary's College of California

MBA, Emphasis in Business Analytics – With Honors Moraga, CA

Florida Institute of Technology

May, 2015 Irvine, CA

M.A., Professional Behavior Analysis

May, 2010

California State University, Chico

B.S. Exercise Physiology

Chico, CA

## **HIGHLIGHTED PROJECTS**

# Topic Modeling of Open Text Caregiver Satisfaction Surveys

Build NLP pipeline and topic models to identify different factors that that influence staff satisfaction.

### Natural Language Processing of Behavior Analytic Research Literature

• Gather and analyze 10,000 behavior analytic journal articles to identify topics and general research focus.

### Citation Network Analysis of Behavior Analytic Research Literature

Parse and build networks of citations within behavior analytic research literature.

# Backyard Science - Using Computer Vision to Teach Squirrels to Pick Up Cigarette Butts

• Utilize computer vision and shaping procedures to teach squirrels to pick up cigarette butts.

### ADDITIONAL POSITIONS

Behavioral Data Science Research Lab Affiliated Graduate Research Collaborator

Aug. 2021- Current

Western University

Nov. 2020- Dec. 2022

Research Application Developer – Derived stimulus relations

Caldwell University

May 2021 - July 2021

Teaching Assistant – Introduction to Coding in Behavior Analysis

#### **PUBLICATIONS**

- **Sosine, J.**, & Cox, D.J. (accepted). Natural language processing to identify trends and gaps in the published science of behavior analysis. The Analysis of Verbal Behavior.
- Cox, D.J., Javed, A., **Sosine, J.**, Cordeiro, C., & Sotomayor, J. (accepted). Data recording and analysis. In J.K. Luiselli (Ed.) Applied Behavior Analysis Advanced Guidebook: A Manual for Professional Practice: Second Edition. Academic Press: Beverly, MA.
- Cox, D.J., **Sosine, J.**, & Dallery, J. (2017). Application of the matching law to pitch selection in professional baseball. Journal of Applied Behavior Analysis, 50, 393-406. doi:10.1002/jaba.381

#### WHITE PAPERS CO-AUTHORED

- Behavioral Health Center of Excellence (June, 2022). Quarterly Strategic Benchmark Report: Predicting Staff Satisfaction. <a href="http://bhcoe.org/qsbr">http://bhcoe.org/qsbr</a>
- Behavioral Health Center of Excellence (March, 2022). Quarterly Strategic Benchmark Report: Parent and Guardian Satisfaction. <a href="http://bhcoe.org/qsbr">http://bhcoe.org/qsbr</a>
- Behavioral Health Center of Excellence (Nov, 2021). Quarterly Strategic Benchmark Report: Fiscal Metrics. <a href="http://bhcoe.org/qsbr">http://bhcoe.org/qsbr</a>
- Behavioral Health Center of Excellence (Sep, 2021). Quarterly Strategic Benchmark Report: 2001 ABA Compensation & Turnover Report. <a href="http://bhcoe.org/qsbr">http://bhcoe.org/qsbr</a>
- Behavioral Health Center of Excellence (Jan, 2021). Quarterly Strategic Benchmark Report: Predicting Turnover in ABA Organizations. <a href="http://bhcoe.org/qsbr">http://bhcoe.org/qsbr</a>

### Open Science Datasets/Code

- Sosine, J., & Cox D.J. (2022a). NLP\_behavior\_analytic\_journals. https://doi.org/10.5281/zenodo.6536543
- Sosine, J., & Cox D.J. (2022b). command-v-command-c. https://doi.org/10.17605/OSF.IO/DXVRJ
- Cox, D.J., & **Sosine, J**. (2022). Parent reflections on ABA: Analysis of 5,450 open-ended responses. https://doi.org/10.5281/zenodo.5815646

### PROFESSIONAL PRESENTATIONS

#### NATIONAL/REGIONAL

- <sup>1</sup>Page, S., Kazemi, E., & Cox, D.J. (Sep, 2022). Organizational outcome data: What's ya bench...mark?. Association for Behavior Analysis International 11th International Conference. Dublin, Ireland.
- **Sosine, J.**, & Cox, D.J.(May, 2022). Building and analyzing citation network of behavior analytic research literature. Association for Behavior Analysis International (ABAI) 48th Annual Convention. Boston, MA.
- Sosine, J., & Cox, D.J. (May, 2021). Natural language processing to identify trends and gaps in the published science of behavior analysis. Association for Behavior Analysis International (ABAI) 47th Annual Convention. San Francisco, CA.
- Morford, Z., Cox, D.J., Sosine, J., & Gnikobou, C. (March, 2022). Using supervised machine learning to predict turnover in ABA organizations. Annual CalABA Conference. Santa Clara, CA.
- **Sosine, J.**, Cox, D.J., Morford, Z., & Gnikobou, C. (March, 2022). Analyzing open-text verbal behavior at scale. Annual CalABA Conference. Santa Clara, CA.
- Gnikobou, C., Cox, D.J., **Sosine, J**., & Morford, Z. (March, 2022). Analyzing, improving, and using satisfaction survey data. Annual CalABA Conference. Santa Clara, CA.

#### LOCAL

- **Sosine, J.** (September, 2020). Computer vision: A brief, technical report. Behavior Analysts Who Code. Online Synchronous Online. <a href="https://www.codingbehavioranalysts.org/">https://www.codingbehavioranalysts.org/</a>
- **Sosine, J.** (June, 2020). Natural Language Processing to Identify topics of focus across behavior analytic publications. Online Synchronous Online. https://www.codingbehavioranalysts.org/
- Sosine, J., Neuberger, S., Osborn, L. (April, 2020) Data or it didn't happen. Speech Pathology Group. Walnut Creek, CA.
- **Sosine, J.** (August, 2019). Structured supervision training: Functional Analysis. Speech Pathology Group. Walnut Creek, CA.
- **Sosine, J.,** Germer, K. (March, 2019). Structured supervision training: introduction to ethics and decision making. Speech Pathology Group. Walnut Creek, CA.
- **Sosine, J.**, Germer, K., Zaporteza, P. (March, 2019). The interdisciplinary relationship: BCBA's and SLP's. Speech Pathology Group. Walnut Creek, CA.

Exam Passed: 11/30/2015

#### **BOARD CERTIFICATIONS**

Board certified behavior analyst # 1-15-21172

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<sup>&</sup>lt;sup>1</sup> Primary analyst