# Jonah Lipsky

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## EXPERIENCE

**Staff Applications Engineer**
**Medidata Solutions, a Dassault Systèmes company**                                    **April 2023 - Present**
*Team leader of 5 other engineers building a new Java-based, Kafka-integrated service on a deadline
  *Implemented two APIs in C#/.NET in the oldest and most important app at the company
  *Organized design discussions across departments to deliver a new service supporting 2 important apps
  *Created designs and architecture documentation using the Arc42 conventions and the C4 diagramming model
  *Coordinated code implementation in 3 languages (Ruby, C#, Java) across 6 repositories and 3 departments
  *Mentored 3 junior engineers and collaborated with two other senior engineers via code review and pairing
*Added Prometheus metrics to a service written in Go and contributed to three Go repositories via code review
*Conducted a proof of concept for a Lambda-based approach to handle a high-volume Kafka stream, involving pricing and throughput estimates, creation of Terraform IAC templates, and network troubleshooting.

**Senior Applications Engineer, Medidata Solutions**                                    **April 2021 - April 2023**
*Trained a deep neural network on a dataset on the order of 10,000 data points, based on production customer data, and achieved strong precision (avg 0.81), recall (avg 0.68) and F1 (0.73) scores for 7 separate predictors
  *Wrote Python scripts using Pandas and scikit-learn to do exploratory data analysis and to train the model
  *Created synthetic features based on an analysis of the shape of the data and exploration of available features
  *Used Snowflake data warehouse to extract and transform data
  *Presented the results to executive leadership and advocated for the expansion of ML at the company
*Led procurement effort of a Feature Flagging tool: RFP, POCs, pricing negotiations, executive presentations
  *Enabled teams to move from deploying every 1 to 2 months to every 1 to 2 weeks.
  *Decreased feature enablement or disablement time from 20 minutes to an hour to under ten seconds.
  *Spearheaded the rollout of the tool across dozens of teams, including writing internal code to streamline the process, training persons to use the software, and advocating for its expanded use.
*Trained two junior engineers on performance and scalability approaches for refactoring a high-volume application
*Advised two India-based engineering teams on a cross-service feature via pairing and code review
*Created a ruby gem for coordinating container autoscaling based on application metrics and deployed it to production

**Applications Engineer, Medidata Solutions**                                    **April 2019 - April 2021**
*Led the implementation in one repository of a mission-critical feature as part of a multi-department initiative
*Designed and implemented custom AWS ECS auto-scaling for > 10 services in an application serving >1 million users
*Worked with a team of 4 engineers to maintain, develop, and deploy three codebases serving >1 million users
*Used TDD (RSpec) and BDD (Cucumber) methodologies to write automated tests in a Rails app.

**Lab Manager and Research Assistant**
**The Clinical and Affective Neuroscience Lab at Brown University**                                    **Jan 2014 — May 2018**
*Hired and managed 50+ undergraduates and graduate students working on more than 15 projects over 3 years.
*Created automated graphs using R to display clinical progress over time for 75+ participants in a 3-year trial.
*Computed statistics for, and co-authored, a publication from a clinical trial that included over 100 individuals.
*Managed over 20 related spreadsheets combining data from nearly 200 academic papers for a meta-analysis which led to 3 peer reviewed papers (see citations below).

## SKILLS

**Languages, Frameworks and Tools:** Ruby (Rails, RSpec, Cucumber), JavaScript (TypeScript, React, Redux, Next.js, Node.js), Python (TensorFlow, Pandas, scikit-learn), C# (.NET), SQL (PostgreSQL, MySQL), Java (Maven), Go, R, HTML, CSS, GraphQL.
**Cloud and DevOps:** Kubernetes, Docker, Amazon Web Services (RDS, SQS, S3, ECS, EC2, MSK, SSM and more), Google Firebase, Prometheus, OpenTelemetry, Sumologic, Terraform.
**Software Architecture** Microservices Architecture, Software System Design, Arc42 Architecture Standard, C4 Diagramming Model, Mermaid Diagramming Language.

## EDUCATION

**Harvard Extension School,** Cambridge, MA (attended online).                                      **Spring 2023**
Relevant Coursework: Discrete Mathematics for Computer Science (Grade: A)
**Coursera Online**                                                                                                     **2020-2022**
[Mathematics for Machine Learning Specialization](#) (3 course), [Machine Learning Specialization](#) (3 courses).
**App Academy,** New York, NY.                                                                    **Nov 2018 — April 2019**
*Full-stack Coding Bootcamp with <3% acceptance rate. 1000 hour software development course that focuses on full-stack development and teaches React, Javascript, Ruby on Rails, SQL, Redux, TDD, algorithms, design patterns, and best practices.*
**Bennington College (BA)**, Bennington, VT. Concentrations: Psychology & Drama         **2008 - 2013**
Relevant Coursework: Introduction to Computer Science using Python, The Creation of Statistics using R

## ACADEMIC PUBLICATIONS AND POSTERS

Britton WB, Desbordes G, Acabchuk R, Peters S, Lindahl JR, Canby NK, Vago DR, Dumais T, **Lipsky J**, Kimmel H, Sager L, Rahrig H, Cheaito A, Acero P, Scharf J, Lazar SW, Schuman-Olivier Z, Ferrer R, Moitra E. (2021) From Self-Esteem to Selflessness: An Evidence (Gap) Map of Self-Related Processes as Mechanisms of Mindfulness-Based Interventions. *Frontiers of Psychology.* ([Link](#))

Hoge EA, Acabchuk RL, Kimmel H, Moitra E, Britton WB, Dumais T, Ferrer RA, Lazar SW, Vago D, **Lipsky J**, Schuman-Olivier Z, Cheaito A, Sager L, Peters S, Rahrig H, Acero P, Scharf J, Loucks EB, Fulwiler C. (2021) Emotion-related constructs engaged by mindfulness-based interventions: A systematic review and meta-analysis. *Mindfulness.* ([Link](#))

Eichel K, Gawande R, Acabchuk RL, Palitsky R, Chau S, Pham A, Cheaito A, Yam D, **Lipsky J**, Dumais T, Zhu Z, King J, Fulwiler C, Schuman-Olivier Z, Moitra E, Proulx J, Alejandre-Lara A, Britton WB. (2021) A Retrospective Systematic Review of Diversity Variables in Mindfulness Research, 2000–2016. *Mindfulness.* ([Link](#))

Britton WB, Davis JH, Loucks EB, Peterson B, Cullen BH, Reuter L, Rando A, Rahrig H, **Lipsky J**, Lindahl JR. (2018) Dismantling Mindfulness-Based Cognitive Therapy: Creation and validation of 8-week focused attention and open monitoring interventions within a 3-armed randomized controlled trial. *Behaviour Research and Therapy.* ([Link](#))

**Lipsky J**, Acero P, Cho L, Kreidler P, Zhu Z, Britton WB (2017) Where is your (Mind)fulness? It Matters for Sleep. Society for Affective Science Annual Conference. Boston MA, April 27-29, 2017. (Poster Presentation)

**Lipsky J**, Acero P, Cho L, Kreidler P, Zhu Z, Britton WB (2017) Where is your (Mind)fulness? It Matters for Sleep. Association for Psychological Science Annual Convention. Boston MA, May 25-28, 2017. (Poster Presentation)