Orange County, California • 802-735-7229 • brojonat@gmail.com brojonat.com • github.com/brojonat • linkedin.com/in/brojonat

## PROFESSIONAL EXPERIENCE

## Data Science Manager, HeadSpin Inc.

• Managed a team of roughly 5 data scientists and analysts. I was responsible for keeping the data team's work aligned with core business objectives that spanned customer help desk, internal tooling, and product development business domains. I also performed extensive code review and leveled-up junior developers.

Senior Data Scientist, HeadSpin Inc.

• Collaborated with internal stakeholders to implement internal APIs and UIs responsible for business-critical operations including usage-based billing, provisioning hardware for customers, and reducing unnecessary cloud spend. I eliminated error-prone spreadsheet driven processes and provided auditing and alerting of operational data crucial for scaling business operations and maintaining platform health. I also instrumented key components of our data pipeline with Prometheus and Grafana tooling that provided the organization with visibility into key metrics and increased engineers' productivity.

• Interfaced with customer support daily. I was consulted countless times and helped resolve nuanced bugs in our platform's behavior, which required my extensive expertise with our disparate internal systems. Jan 2020 – Apr 2022

Data Scientist, HeadSpin Inc.

- Implemented and maintained dozens of customer-facing metrics and APIs for detecting, diagnosing, and resolving critical performance and user experience issues in customer applications, which is the core value proposition of the HeadSpin platform. These features are derived from analyses that operate on video, audio, and network packet streams and run asynchronously on distributed systems utilizing the full stack: SQL, Python, Go, and JavaScript. Customer-facing interfaces serve the results via HTTP and WebSocket endpoints, and many of these metrics are visualized in real time in the HeadSpin UI with D3.
- Made significant software improvements to the HeadSpin platform in addition to my contributions as a data scientist. I successfully executed a full reimplementation of a flagship data product. I eliminated unnecessary computation and dramatically reduced load times of important customer facing resources. This was crucial for scaling the core suite of analyses that run on the HeadSpin platform.

Insight Data Science Fellow, Insight

• Mined over one hundred thousand matches and trained models that predicted game outcomes with 75% accuracy. Deployed models in a Django app designed to minimize player churn.

Postdoctoral Scholar, UC Santa Cruz

- Deployed a Django app to automatically index, archive, explore, and retrieve tens of thousands of astronomical images, enabling reproducible science with high quality curated datasets.
- Deployed a Diango app to coordinate distributed follow-up of astrophysical transients using probabilistic models to maximize detection likelihoods of rare transient events.

Graduate Student Researcher, The Ohio State University

- Measured key physical properties of hundreds of thousands of galaxies by developing empirical, data-driven, non-parametric models based on subtle features in spectroscopic data.
- Characterized the physical properties of rare astrophysical phenomena by connecting imaging data, spectroscopic data, and intuitive models using non-linear regression and MCMC techniques.

## EDUCATION

Ph.D. in Astronomy, The Ohio State University	July 2018
M.S. in Astronomy, The Ohio State University	July 2016
B.S. w/ Highest Honors in Astrophysics, University of Michigan	May 2013
B.S. in Interdisciplinary Physics, University of Michigan	May 2013

## TECHNICAL SKILLS

Software: Python, Go, JavaScript, MySQL, Postgres, Redis Tools: NumPy, Pandas, Scikit-learn, Vue, Django, D3, Prometheus, Grafana, OpenCV, Tesseract Cloud/Orchestration: Docker, AWS (S3, EC2, RDS, Redshift), Airflow, Temporal, Kubernetes

Aug 2018 – Aug 2019

Aug 2013 – July 2018

Sept 2019 – Dec 2019

Apr 2024 – Jun 2024

Apr 2022 – Apr 2024