NISSA MAI-ROSE

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Mathematica   *October 2023 - Present*
Senior Software Engineer   Remote
- On Core Set, document, maintain, and develop work plan to make updates to multiple serverless applications composing a system to continuously load, validate, and reconcile state Child & Adult Health Care Quality Measures data to a cloud-hosted SQL database, provide access to researchers for data cleaning and analysis, automate the production of annual reports.
- On Medicaid and CHIP Learning Collaboratives, lead a 7-person cross-functional, agile technical team of software and data engineers, plus business-intelligence analysts to develop software generating monthly reports on national trends in Medicaid/CHIP eligibility & enrollment (Databricks). Work with stakeholders to align engineering priorities and tradeoffs, and determine timelines. Write technical specifications and perform code reviews. Maintain product roadmap. Encourage collaboration and shared purpose on team. Mentor engineers.
- Lead optimization & development of the AWS PostgreSQL database; improve view query runtime by 10x (MACLC)
- Document, present, and encourage the use of best practices for team-wide and organization-wide shared technologies

Sefaria.org   *June 2021 - September 2023*
Senior Software Engineer   Remote
- As lead engineer on CRM migration, documented previous and new system integration with our web/mobile application (Sefaria.org) containing 250,000+ user accounts. Collaborated with stakeholders (Marketing/Communications, Education, and Development teams) and developed plan to refactor application interfaces, normalize existing data, and validate+clean data from multiple incongruous systems and databases. Ensured clean orchestration of system changes and updates so that we could easily switch to a new CRM without data loss or site/feature downtime for 700k+ unique users per month.
- Improve engineering processes on Internal Services & Ventures engineering teams: agile feature development – doubled our productivity and improved remote team morale, created internal services intake process to triage and plan features
- Using Python, write and maintain tools to parse, index, and link complex, related texts from multiple formats into structured data for "library" web application with line-by-line translations into multiple languages. Full-stack feature development, debugging, and testing for legacy web application (React + Django). Dev stack also includes Mongo, PostgreSQL, K8s+GCP.
- R&D for new Sefaria applications: quickly prototype and iterate on web products allowing users to access a vast library of texts in new and creative ways, including text and phrase linking, dictionary and concordance access, and self-guided learning tools

Mathematica   *June 2016 - May 2021*
Full Stack Engineer   Remote
- As tech lead on Massachusetts Delivery System Reform Incentive Payment Program (MA-DSRIP) Community Partners Data Analytics Portal, led development of a cloud-hosted Angular application (S3, Cognito, Lambda + .NET Core) allowing users from different Community Partners & Community Service Agencies to log in and view patient care analytics reports. Worked with client to determine features & release timelines, plan work for developers, make decisions about data structures, review code
- As tech lead on the Provider Performance Application Framework, planned feature development, wrote and reviewed code for web apps allowing users to compare care performance indicators for providers (hospitals, physicians, systems)
- Developed features using Angular, .Net Core, T-SQL on multiple internal web applications related to providing data management and technical assistance on the Annual Core Set Review and Selection Process. Review code written by the dev lead
- On the MACBIS T-MSIS Data Quality Tool, updated Angular components to ensure accessibility (508 compliance) and improve user experience in tracking and ensuring state compliance with data quality, currency, completeness standards. Updated T-SQL database queries; wrote Swagger documentation of web APIs. Updated ETL to pull data from S3 instead of Windows file system
- Developed curricula and taught web engineering basics to staff looking to develop more rigorous programming skills
- Generated reports using Python and C#, implement SQL databases, developed features and bug fixes on web applications

Dispersive Solutions   *August 2015- May 2016*
Software Engineer, Research Team   Alpharetta, GA
- Wrote Ansible modules to interface with client management system's REST API for automated deployment
- Ported a native linux app to iOS 9, modified the C/C++ codebase, and added Swift and Objective-C modules; documented SDK

University of Chicago, Bachelor of Arts in Sociology   *Departmental and General Honors, June 2015*

SKILLS AND INTERESTS
- *Expertise:* Engineering management, full-stack engineering, data platforms engineering, risk-driven architecture, SQL, C#, Python, typescript, Mongo, ASP.NET Framework/Core, unit + integration + e2e testing, Agile software development
- *Proficiencies:* AWS (CloudFormation, S3, Cognito, IAM, DynamoDB), web application architecture & security, UX, GCP+K8s
- *Misc Skills & Interests:* community organizing, fiber arts, long-distance running, making music with friends