

EDUCATION

Georgia Institute of Technology, Atlanta, GA
M.S., Bioinformatics

Graduation: Dec 2019

Manipal Institute of Technology, Manipal, India
B.Engg. in Biotechnology Engineering, Genetic Engineering minor

Graduation: May 2018

EXPERIENCE

Head of Data Solutions & Principal Data Scientist
Global Payments Inc., Atlanta, GA

Jun 2021 – Present

- **Founded, directed and operationalized the Data Solutions division**, reporting to the CTO, and directly managing a 14 member team across Data Science, Data Engineering, Data Governance, and Business Intelligence Reporting - delivering over 50 high value projects, with an ARR of over \$6MM
- **Founded and led AI/ML practice** at Global Payments and was the primary consultant on all AI/ML activities company-wide; launched predictive analytics products in 4 countries, serving over 150,000 businesses with a model accuracy of over 97% - raking in an ARR of over \$2.6 MM
- **Evangelized and executed** the monetization of data products from Synthetic data generation to Gen AI powered commerce copilots.
- **Transformed Business Intelligence team operations** through Agile practices and scrum-based approach, modernizing over 80 on-prem SQL-based reports into Looker Cloud.
- **Enabled business-wide data governance** by fostering collaboration with the enterprise data asset management team. Identified and remediated over 100 data risks, while also spearheading the creation of a data asset inventory and implementing a strategic data retention plan for our business unit.
- **Certified Federated Architect** for the business unit and was responsible for ensuring all net-new solutions adhere to enterprise information security standards and architecture standards.
- **Served as the Chair for the Culture Committee (2022-2024)**, leading an 11-member steering committee to organize team events, lunch and learn sessions, improving our eNPS score by 12 points in 2023.

Bioinformatics Engineer
General Dynamics Information Technology, Atlanta, GA

Jan 2020 – Jun 2021

(Centers for Disease Control and Prevention - Scientific Computing and Bioinformatics Support Contract)

- **Managed infrastructure issues** for applications/services on 100+ CentOS systems; installed and configured 150+ Unix-based applications.
- **Automated LDAP** user onboarding, reducing process time by 18x, and deployed 50+ CRON jobs for system monitoring/alerts.
- **Supported high-performance computing cluster** with 80+ nodes and 2000+ cores; improved job performance through user support and script customization.
- **Led development of the Scientific Computing Team's intranet website** for hosting training content and user-guides; incorporated Google Analytics to inform data-driven training improvements.
- **Developed and presented** Python, Data Cleaning, Analysis, and Visualization training to 2200+ users and managed client support resolving over 1400 client tickets.

Graduate Research Assistant
Lachance Lab, Georgia Institute of Technology, Atlanta, GA
Supervisor: Joseph Lachance, Ph.D.

Aug 2018 – Dec 2019

- **Developed STRUCTUREpainter**, a tool to estimate genome-wide human population-structure, optimizing data-processing parameters to speed up the process by 100%.

- **Developed a variant detection pipeline** for analyzing Next Generation Sequencing (NGS) data and a Quality Control application for visualizing and summarizing NGS data to identify faulty samples.

PROGRAMMING LANGUAGES AND TECHNOLOGIES

- **Scripting Languages:** Python (highly proficient), Bash (highly proficient), R and JavaScript.
- **Cloud Computing Platforms:** GCP and AWS
- **Other Technologies:** UGE Cluster Computing, Snakemake, Airflow, Docker, Singularity, LDAP, Tableau, Looker, HTML, D3.js, SQL, Jenkins, Web Servers (Apache and Nginx), Google Analytics and Looker.

PUBLICATIONS

- Mathematical modeling of movement on fitness landscapes (2019): **Gerald, N.**, Dutta, D., Brajesh, R. G., Saini, S. (2019). Mathematical modeling of movement on fitness landscapes. BMC Systems Biology, 110. <https://doi.org/10.1186/s12918-019-0704-0>

HONORS AND AWARDS

- **Georgia Tech Computational Biology Faculty Research Awards** for the academic years 2018 and 2019

INTERESTS

- At-home tech projects (ask me about my soil moisture sensor and jeopardy game)
- Building AI tools for everyday use
- Brewing and beer-tasting
- Soccer (Inter-collegiate level)