Nathan A. Riojas

me@nathanriojas.com | 972-800-0994

Georgia Institute of Technology
MS, Computer Science
GPA, 4.0

The University of Texas at Austin
BS, Mechanical Engineering
Minor, Computer Science | Robotics
GPA, 3.6

Software Engineering Work Experience

04/23–Present **Senior Data Engineer, Hopscotch Primary Care**

- Built out data infrastructure supporting end-user workflows, 3rd party integrations, and analytics needs using PySpark and Palantir Foundry for distributed computing and storage systems
- Automated the ingestion of new healthcare data (HIE, ADT feeds) via APIs, SFTPs, and webhooks using Foundry ETL scheduling to enhance the quality of information available to clinics
- Engineered a predictive diagnostic pipeline integrating data feeds and vendor algorithms using AWS SAM, Lambdas, S3, and API Gateway to improve Medicare quality measures scores
- Scoped and implemented Azure AI OCR tool to assist with parsing patient EMRs to reduce time taken by clinical care and population health teams to find historical diagnoses
- Collaborated with data team to architect organizational ontology/data model

03/21–04/23 **Data Science Engineer, Nomi Health**

- Developed AWS Lambdas using Serverless and internal APIs to ingest data into data warehouses (DocDB via Pymongo, Snowflake via SnowConn) used for customer-facing UI and analytics
- Securely ingested PII data into archival data lakes (S3 buckets) via SFTP connection using pysftp
- Iteratively built an EDI parser by translating healthcare rules from implementation guides into internal Python libraries later packaged as an internal API
- Utilized BeautifulSoup library and CRON triggers to periodically update database on medical codesets to keep the company's medical claim parser up to date with healthcare standards
- Updated data model defined via Protobuf files according to new business requirements

03/17–11/20 **Software Development Engineer in Test, Codeware Inc.**

- Verified accurate implementation of ASME design calculations within new software dialogs and 3D interfaces and created corresponding functional tests using TestComplete
- Coded supplementary frameworks using Python and Javascript to mimic TestComplete testing functionality when native functions were incompatible with the company's INSPECT software

Engineering Work Experience

06/16–03/17 **Equipment Engineer, NXP Semiconductors**

- Iteratively increased factory output through upgrades to robotic equipment reducing downtime

02/15–05/16 **Research Engineer, University of Texas at Austin**

- Engineered and published the design of a semiconductor wafer handling robot with a 6 micron precision made of composite actuator systems to enhance accuracy of in-line metrology processes
- Designed a biaxial heart tissue testing system for mitral valve analysis using SolidWorks, incorporating load cells and actuators to mimic loads experienced during heartbeats over time
- Fabricated a gait rehabilitation robot based on a motion path algorithms coded using MATLAB

Software Technical Projects

Georgia Institute of Technology, MS Computer Science

- Tested several learning algorithms (decision tree, random tree, random forest, Q learners) to analyze, manipulate, and optimize stock data and buy/sell decisions
- Coded SLAM algorithms and PID tunning to mimic real time path finding and optimization for robots
- Applied Viterbi and forward-backward algorithms to interpret sign language data using Hidden Markov Models

University of Texas at Austin, Minor Computer Science

- Developed an Android app to calculate user punching power utilizing accelerometer data from a wearable device

Languages *Python, SQL, Matlab, Javascript, R, Java, HTML, CSS*

Libraries & Frameworks *AWS Serverless, Pyspark, Pandas, NumPy, PyMongo, PySFTP, SciPy, Bootstrap*

Platforms *Palantir Foundry, AWS (Lambdas, CloudWatch, API Gateways, DynamoDB), Snowflake, GitHub, Postman*

Tools *Git, Protocol Buffers, Jupyter Notebook, Pycharm, Miniconda, TestComplete, Android Studio*