**Nathan A. Riojas**

**The University of Texas at Austin**

*BS, Mechanical Engineering*

*Minor, Computer Science | Robotics*

*GPA, 3.6*

**Georgia Institute of Technology**

*MS, Computer Science*

*GPA, 4.0*

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**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*