

# SHIDE QIU

*Software Engineer*

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## EDUCATION

MSc

Computer Science

**Georgia Institute of Technology**

📅 Aug 2020 - Dec 2023

🎓 GPA: 4.0/4.0

MSc

Materials Engineering

**University of Alberta, AB**

📅 Sep 2016 - Dec 2018

🎓 GPA: 3.9/4.0

BEng

Materials Science and  
Engineering

**Jilin University, China**

📅 Sep 2012 - Jul 2016

🎓 GPA: 3.9/4.0

## SKILLS

- Python
- TypeScript
- JavaScript
- PostgreSQL
- MongoDB
- NodeJS
- PyTorch
- TensorFlow
- AWS
- GCP

## RELEVANT WORK EXPERIENCE

Full Stack Software Engineer/Data Scientist

True Angle Medical Technologies

📅 Sep 2019 - current

- **Full Stack Development:** Spearheaded the development and deployment of a full-stack web application on AWS which has managed over 280k data entries. This platform emphasized real-time data collection, analysis, and intuitive visual representation, resulting in a 50% increase in user engagement.
- **Data Integration:** Engineered a robust data pipeline, aggregating information from disparate sources and transforming it into a unified format, paving the way for streamlined analysis, saving over 10 hours each week in manual data search.
- **Business Intelligence:** Crafted a detailed business intelligence dashboard, delivering actionable insights, catered to the requirements of 100+ customers.
- **Machine Learning Implementation:** Pioneered algorithms for swallow detection and breathing activity classification, achieving an impressive accuracy rate of over 95%.

## PROJECTS

Machine Learning for Swallow Detection

📅 May 2022 - current

- Architected a robust protocol to acquire and labeled swallowing data, storing it on AWS RDS for accessibility and scalability.
- Performed data wrangling and feature engineering on time series data to develop 25 representative features.
- Employed a diverse set of ML algorithms (Logistic Regression, DT, KNN, SVM, NN) targeting swallow detection efficacy.
- Implemented the optimal ML algorithm to the iOS app yielding a 35% improvement in swallow detection and 50% increase in processing efficiency.

Full Stack Web Application

📅 Mar 2020 - current

- Designed the relational database on AWS, tailored to monitor swallow activities, encompassing data from 800 customers.
- Crafted a robust web application employing NodeJS for the back-end and Svelte for the front-end, deployed on AWS Elastic Beanstalk.
- Implemented an automated testing, ensuring consistent performance and reliability for the web application, saving over 10 hours each week in manual testing.
- Designed an ETL system capable of aggregating data from diverse resources. Accentuated the project by developing a QuickSight BI dashboard, empowering business representatives with actionable insights for data-driven decision-making.