

# Nick Wall

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## Experience

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### IBM

May 2022 - August 2022

Software Development Intern

Dallas, TX

- Worked with research teams to develop solutions using custom state-of-the-art AI models for customers with use cases in knowledge extraction and natural language processing.
- Developed knowledge graph visualization and search software to enable faster iteration of knowledge extraction tools.
- Trained and optimized custom AI models for coreference resolution, named entity recognition, and relationship extraction.
- Created and curated datasets to improve AI model performance through detailed annotations and evaluation.

### IBM

May 2021 - January 2022

Application Development Intern

Dallas, TX

- Developed event-driven microservice applications with Domain-Driven-Design patterns.
- Deployed and maintained containerized applications on Kubernetes clusters.
- Developed conversational AI applications to streamline workflows.
- Trained, optimized, and deployed. Speech-to-Text models to handle low-quality phone calls with performance comparable to the state-of-the-art.
- Guided a team of 10 less technical users and teammates in applying AI for Natural Language Processing through dataset construction and developing models.
- Built a real-time dashboard to monitor conversational AI applications, reducing monitoring latency by a factor of 10.
- Created linear optimization models for client applications.

### Award Solutions

June 2018 - August 2018

Software Intern

Plano, TX

- Provided BI analytics solutions for leadership by developing software
- Developed scripts to expedite business workflows by removing more than 50 manual tasks

## Education

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### Southern Methodist University

August 2019 - December 2022

Computer Science

Bachelor of Arts

Artificial Intelligence and Machine Learning Specialization

### Southern Methodist University

January 2023 - December 2023

Computer Science

Master of Science

Artificial Intelligence and Machine Learning Specialization

## Coursework

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### Relevant University Coursework

Natural Language Processing, Machine Learning and Neural Networks, Data Structures, Algorithms, Artificial Intelligence, Machine Learning in Python, Statistical Methods, Mobile Applications for Sensing and Learning, Algorithm Engineering, Data Mining, Cloud Computing

## Skills

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### Machine Learning

Model training & Data curation

PyTorch, JAX, Web Scraping, Ray, NLP

### Backend Development

Kubernetes/OpenShift and Serverless

Rust, Typescript, SQL, Python, Distributed Systems

### Frontend Development

Comfortable building user interfaces

React (Next.js/Astro), SwiftUI, Gradio, CSS

### Miscellaneous

Software Engineering experience

Git, Cloud Computing (AWS), Design Patterns

### Soft Skills

Driven to help team and customers succeed

Team Player, Adaptable, Open-Minded

## Awards

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### SMU Distinguished Scholar

Southern Methodist University

All-university scholarship awarded for achievement.

### Lyle Discovery Scholar

Southern Methodist University

Scholarship awarded for achievement to engineering students.