

# Ethan Roland

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## Education

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### Georgia Institute of Technology - Atlanta, GA

*B.S. Computer Science & Chinese Minor*

- **Honors:** Magna Cum Laude
- **Extracurriculars:** AI Club, Weightlifting Club, WREK Radio Club
- **Relevant Coursework:** Machine Learning, Agile Methodologies, Databases, Data Structures & Algorithms, NLP

### Shanghai Jiaotong University - Shanghai, China

*Chinese Language Immersion Program, Short Course*

## Skills

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- Strong business-focused communication skills that emphasize bottom-line impact while maintaining technical rigor
- Over 3 years of experience in Gen AI tools, including prompt engineering, LLM finetuning, & RAG systems
- More than 7 years experience in Python, Java, C++, and JavaScript
- Proficiency in cloud computing platforms including AWS, Azure, GCP, and Vertex AI
- Expertise in machine learning tools & platforms including SciPy, PyTorch, TensorFlow, JAX, NumPy, and Pandas
- Background in both traditional statistical analysis and neural network based approaches like Transformers and CNNs
- Proficiency with fullstack SWE tools, including HTML, Typescript, React, SQL, Docker, S3, EC2, Sagemaker, JIRA, and Tableau

## Experience

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### AGCO Corporation, Atlanta, GA

*Generative AI Team Lead, Jun 2023 - Present*

- Enabled 50% reduction in time-to-resolution for customer issues via LLM-powered RAG system over 15 million documents
- Led a team of eight to build custom industry-leading Generative AI powered software for customer support
- Owned all aspects of Generative AI application development - including ETL, cloud architecture, & frontend engineering
- Implemented a custom, scalable search engine indexing over 5 TB of internal company data

*Senior Data Scientist, Aug 2021 - Jun 2023*

- Simplified 5 regional forecasting efforts into a one global industry demand forecast using custom time series forecasting models
- Improved combine harvester grain yields by applying bayesian optimization techniques to machine performance
- Enabled 10x improvement in efficiency of internal audit department by automating identification of suspicious transactions
- Reduced farm operating costs by creating algorithm to find optimal fertilizer applications
- Deployed NLP techniques to identify reoccurring production issues on the factory floor

*Engineering Data Analyst, Jun 2020 - Aug 2021*

- Applied machine vision and NLP techniques to automate information parsing from technical documents
- Enabled more than \$20 million in savings via automation of redundant part identification

### Phonology Laboratory, Atlanta, GA

*Linguistics Research Assistant, Mar 2020 - Jun 2021*

- Developed neural models for speech recognition that operate within the browser to assist with foreign language education

## Projects

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### Capital One @ GT - Student Team Leader

*Capstone Design project to develop a web application for Capital One employees*

- Used Agile principles to lead a team of six students throughout a two semester web design project for Capital One
- Developed webscrapers to aggregate local event web postings and automatically categorized them using NLP techniques