

# Ethan Roland

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## EDUCATION

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### GEORGIA INSTITUTE OF TECHNOLOGY

#### Atlanta, GA

*B.S. Computer Science & Chinese Minor Candidate (Expected graduation May 2021)*

- **Honors:** Honor's Program
- **Extracurriculars:** AI Club, Weightlifting Team, WREK Radio Club
- **Relevant Coursework:** Machine Learning, Agile Methodologies, Database Management, Data Structures and Algorithms

### SHANGHAI JIAOTONG UNIVERSITY

#### Shanghai, China

*Chinese Language Immersion Program (Summer 2019)*

## SKILLS & ABILITIES

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- More than 5 years experience in Python, Java, C, C++, and Javascript
- Proficiency in cloud computing platforms, including Microsoft Azure, AWS, and Google Cloud APIs
- Expertise in machine learning tools, including SciPy, PyTorch, Tensorflow, Julia, Numpy, MS Excel, and Tableau
- Web development experience using HTML, NodeJS, CSS, AngularJS, MongoDB, and SQL
- Conversational fluency in Mandarin Chinese

## WORK EXPERIENCE

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### AGCO CORPORATION, Atlanta, GA

*Research and Development Intern, Jun 2020 - Present*

- Apply machine learning and data modeling techniques to **unstructured text data** to create automated solutions for extracting attribute information from technical documents, using tools like random forest classification and TF-IDF
- Follow **full-stack approach to data science**, creating a pipeline that includes data mining, model creation, accuracy assessment, deployment, maintenance, user interaction, and impact analysis
- Enable more than **\$20 million** in potential savings by helping to identify parts redundancies and increase economies of scale

### PHONOLOGY LABORATORY, Atlanta, GA

*Linguistics Research Assistant, Mar 2020 - Present*

- Develop **speech recognition tools** to enable the analysis and visualization of the speech quality of ESL students
- Implement principles of **user interface design** to ensure easy understanding of complex technical information

### CONTEXTUAL COMPUTING GROUP, Atlanta, GA

*Accessibility Research Assistant, Sept 2019 - Mar 2020*

- Apply **signal processing** techniques to fMRI data to enable the development of state of the art **brain-computer interfaces**
- Develop **experimental procedures** following proper safety and ethical guidelines

### THE WHATEVER NETWORK, Atlanta, GA

*Engineering Intern, May 2017 - Aug 2017*

- Oversee the **agile development** of websites using NodeJS, Angular JS, and other templating languages
- Deploy web services to **cloud service providers** like Heroku and AWS and ensure functionality at large scales

## OTHER PROJECTS

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### CAPITAL ONE @ GT - STUDENT TEAM LEADER

*GT Junior Design project to develop an application for Capital One employees to learn about their area*

- Led team of six developers during a two semester project for Capital One through the Georgia Tech Junior Design program
- Enabled the clear communication of client expectations, and facilitated internal team organization according to Agile principles

### COVID FAKE NEWS DETECTOR

*Applied NLP tools to automatically detect healthcare related fake news*

- Used Word2Vec embedding vectors to train a text classifier to detect if a given social media post contained fake news