

Michael Ortega

Atlanta, GA

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Education

Georgia Institute of Technology

Atlanta, GA

B.S. in Computer Science

Dec 2024

- 3.95/4.0 GPA | Focus in Artificial Intelligence and Theory
- Relevant Coursework:** Machine learning, Deep learning, Graph Theory, Automata & Complexity, AI, Algorithms Honors & Advanced Algorithms, Objects & Design, Data Structures & Algorithms, Probability & Statistics, Discrete Math, Linear Algebra, Combinatorics.
- Activities:** GT Skateboarding Club, WREK Radio.

Broward College

Weston, FL

Associate of Arts

May 2019 - June 2022

- 4.0/4.0 GPA | Summa Cum Laude

Work Experience

Amazon

Boston, MA

Software Development Engineer Intern

May 2024 - August 2024

- Centralized use of employee personal data for compliance, expediting privacy and security reviews.
- Designed and implemented web frontend for comparing tabular data.
- Iterated and improved design through meetings with UX designer and customers, prioritizing accessibility and customer feedback.
- Explored business data (3,600 items) using scripting and clustering techniques and wrote findings to better inform product decisions.
- Technical Skills:** Full-stack development, Java/TypeScript, React, Unit & Integration Testing, Python scripting, Figma.
- Soft Skills:** Customer Involvement, Ownership, Formal Documentation, Presentation Skills.

Mathnasium

Pembroke Pines, FL

Lead Instructor (02/21 - 08/22), Instructor (07/20 - 02/21)

Jul 2020 - Aug 2022

- Trained new instructors and oversaw overall instructor training and growth (approx. 20 instructors).
- Privately tutored Algebra I and II, Geometry, Pre-Calculus, Calculus I, SAT/ACT Prep, and other higher-level Algebra (approx. 20 students).
- Soft Skills:** Teamwork, Time Management, Communication, Team Management.

Research Experience & Projects

Automating Cichlid Behavior Detection

Atlanta, GA

McGrath Lab, School of Biological Sciences | Georgia Institute of Technology

June 2023 - Present

- Creating data set by annotating 50 extracted frames from distinct videos of 38 trials alongside 3 team members and using data visualization and analysis to streamline data set expansion.
- Training and optimizing DeepLabCut model on data to mark and predict body parts and movement for novel videos using hyperparameter tuning and data augmentation.
- Developing a neural network that uses poses to classify cichlid behavior.
- Regularly documenting code and software use, attending weekly lab meetings and presenting at a conference.
- Technical Skills:** End-to-End ML Pipeline Development, Python (TensorFlow, PyTorch, Pandas, NumPy, Matplotlib), Statistical Analysis, DeepLabCut, FFmpeg, Linux CLI.
- Soft Skills:** Formal documentation, Time Management, Presentation Skills, Experimental Design.

Detecting Parkinson's Disease

Atlanta, GA

Big Data Big Impact Club | Georgia Institute of Technology

Sep 2022 - May 2023

- Analysed data set of biomedical voice measurements from 219 patients and results of cognitive assessments from 2300 patients to predict Parkinson's in new patients.
- Trained and altered machine learning model using SVM and XGBoost algorithms to achieve 95% certainty in predictions using biomedical voice measurements.
- Utilized computer vision techniques to recognize patterns of hand tremors in handwriting samples.
- Technical Skills:** Python (TensorFlow, NumPy, Pandas, Plotly, Matplotlib, XGboost, Seaborn), Google Colab.
- Soft Skills:** Time Management, Teamwork.

*Project titles are hyperlinked to their associated repositories.

Skills

Programming Python (TensorFlow, BeautifulSoup, Selenium, Requests, Pandas, etc.), Java, TypeScript (React, Jest, Cypress), C.

Miscellaneous Shell(Bash/Zsh), Linux, LaTeX, Microsoft Office, Ableton Live, Adobe Photoshop.

Soft Skills Time Management, Teamwork, Agile Development, Documentation, Presentation Skills.