Michael Ortega

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Education

Georgia Institute of Technology — *Atlanta, GA*
B.S. in Computer Science — *Anticipated Graduation: Dec 2024*

- 4.0 GPA | Focus in Artificial Intelligence and Theory
- **Relevant Coursework:** 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 GPA | Summa Cum Laude

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, Seaborne), Google Colab.
- **Soft Skills:** Time Management, Teamwork.

*Project titles are hyperlinked to their associated repositories.

Work Experience

Cypress Street Pint & Plate — *Atlanta, GA*
Servers' Assistant & To-Go Specialist / Barback — *March 2023 - Present*

- Supporting servers and bartenders by clearing tables, assisting guests, and restocking supplies in a fast-paced environment.
- Assisting bartenders with opening and closing the bar, servicing guests, and managing orders over the phone, online, and at the bar.
- **Soft Skills:** Teamwork, Time Management, Communication, Customer Service.

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).
- Aided in the enrollment and marketing processes by holding 4-5 monthly parent consults and running 4 marketing events.
- Monitored and updated students' curriculum by curating specific topics for customized curriculum, communicating student progress to parents. (approx. 100 students)
- Privately tutored Algebra I and II, Geometry, Pre-Calculus, Calculus I, SAT/ACT Prep, and other higher-level Algebra (approx. 20 students).
- Aided in the development of integral math skills for middle and high school students.
- **Soft Skills:** Teamwork, Time Management, Communication, Team Management.

Skills

Programming	Python (TensorFlow, BeautifulSoup, Selenium, Requests, Pandas, etc.), Java (Android Studio), C, HTML/CSS, TeX.
Miscellaneous	Windows, Shell(Bash/Zsh), LaTeX, Microsoft Office, Ableton Live, Adobe Photoshop.
Soft Skills	Time Management, Teamwork, Agile Development, Documentation, Presentation Skills.