Andrew Michael Silveira DiBiasio

Computer Scientist

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Education

Georgia Institute of Technology, B.S. in Computer Science, 4.0   *August 2022 to May 2025*
- Concentration in Intelligence and Information Networks. Courses in Artificial Intelligence, Intro to Probability & Statistics, Programming & Optimization, Linear Algebra, DSA (Teaching Asst)

Westford Academy, High School Diploma, 4.36   *August 2018 to June 2022*

Experience

Software Engineer Intern – MITRE   *May 2023 to August 2023*
- Tested and evaluated a YOLOv4 Computer Vision model from DoD CDAO's Smart Sensor. Generated KPI metrics on the detection, classification, and geolocation of military threats. Addressed incompatible hierarchical test image labels using vector similarity search (FAISS).
- Debugged network and configuration issues within a containerized testing harness. Built and pushed docker images of the model onto Linux VMs for use with the harness and analytic scripts.
- Created an extractive AI Outlook bot using LangChain during an LLM focused GPT Hackathon.
- Initialized and configured various AWS Services (EC2, S3, VPCs, IAM, NACL) to deploy highly available and secure websites in a sandbox environment. Earned an AWS CLF-C01 Certificate.

Technical Aide Intern – MITRE   *June 2022 to August 2022*
- Developed Augmented Reality features facilitating indoor navigation and integrated them into the MITRE@Work mobile app used by over 1,000 employees. Utilized Unity and Android Studio.
- Researched solutions to address development platform incompatibilities with the MapsIndoors API Client. Presented viable options geared towards interoperability to the development team.

Technology Director – Interlude Musical Outreach   *June 2021 to August 2022*
- Leading a team of developers to expand and maintain all technological assets.

App Development Project Lead – Interlude Musical Outreach   *August 2020 to June 2021*
- Led a team of developers to create Interlude Connect, an iOS/Android app for scheduling and tracking music lessons built using Flutter and Firebase (~150+ users)

Projects

NLP for Financial Markets, Junior Capstone Project (Three Semesters)   *August 2023 to Present*
- Working under Professor TBD to develop TBD.

Rosalind, a platform for learning bioinformatics   *January 2023 to January 2023*
- Wrote solutions to problems featuring RNA splicing, protein synthesis, & mendelian inheritance.

AirWaves, a [website](#) monitoring TV reception in the Greater Boston Area   *April 2020 to July 2020*
- Generates real-time graphs depicting relationships between various reception metrics and weather conditions. Created an API Framework that submits sanitized queries to the database.
- Established a data pipeline processing incoming signals: feeds signals from an antenna into a tuner, fetches signals from the tuner's API, and stores them in an SQL database.

CHIME, a COVID-19 patient projection [model](#) designed by Penn Medicine   *April 2020 to April 2020*
- Open-Source Contributor making various pull requests resolving open issues. Contributions included the correction of various errors in the model and the implementation of new features.

Technical Skills

Programming Languages: Java, Python, C, C#, JavaScript, Dart
Data Manipulation: Pandas, NumPy, SQL, Matplotlib, Seaborn, PIL
ML/AI: Scikit Learn, PyTorch, FAISS, LangChain LLMs
DevOps: Docker, AWS (AWS CLF-C01 Certified), Git
Web/App Dev: Flask, REST APIs, HTML/CSS, React, JavaScript, Flutter, Unity, Android Studio

Extracurriculars

Big Data Big Impact, Project Developer   *January 2023 to Present*
- Researched and implemented various machine learning algorithms to achieve the best accuracy predicting flight statuses. Models included Random Forest, Decision Trees, and Neural Networks.
- Hosted the best model with a Flask API and deployed the predictor tool using React.

Data Science @ Georgia Tech, Member   *August 2022 to Present*
- Engaged in lectures on various machine learning algorithms and data analysis best practices.
- Used TensorFlow to train facial image classification models predicting age, gender, and ethnicity.

Programming Club at Westford Academy, Co-President   *September 2021 to June 2022*
- Lectured on various CS topics such as data structures and algorithms and machine learning.
- Competed in local and national programming contests. Achieved USACO Silver in April 2021.