APSARA BALAMURUGAN

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TECHNICAL SKILLS

Languages
Python (Tensorflow, NumPy, Keras, Pandas, PyTorch, Scikit-learn), Java, C++, C, SQL, MATLAB

Database Management
MySQL, ETL, PostgreSQL

Cloud-Based Technologies
Docker, AWS

EDUCATION
Class of 2024

Undergraduate Program, Northwestern University, IL
Dual Degree: McCormick School of Engineering (Computer Science) & Bienen School of Music (Composition)
Cumulative GPA: 3.9, McCormick School Honors (Winter & Spring '21, Winter & Spring '22)

High School, The Rivers School, MA
Class of 2020
Cum Laude Award (graduating class of 2020) and High Honors (all four years)
Cumulative GPA (weighted): 4.11, College Board AP Scholar with Distinction Award (2020)
Conservatory Music Program: The Frances Brockman Lanier Music Award (graduating class of 2020)

WORK EXPERIENCE

Data Engineering Intern, HawkEye360, VA
June 2022 – Present
- Led project on streamlining KPI generation for RF-based geolocation accuracy in Apache Superset. Redesigned the underlying data structure and optimized dynamic SQL queries from a static and limited Python script to reduce process time by a factor of 8. Created documentation and led tutorial sessions for department-wide training purposes.
- Developed and extensively tested a Python application using data from multiple APIs to extract GPS satellite ephemeris data and label as definitive/predictive.

Student Employee, Northwestern University, IL
June 2021 – Present
- <u>McCormick School of Engineering</u>
  - TA for Computer Science courses responsible for small group tutorials and 1-on-1 guidance. (2021-2022)
  - Student advisor tasked with helping Computer Science students navigate opportunities and courses and serving as a liaison between students and faculty to improve the student experience. (Present)
- <u>Alumni Relations & Development</u>: Reporting & Analytics intern charged with using high-functioning data analysis libraries to evaluate usage statistics and optimize reporting functionality; implemented various SQL-based data quality management projects to improve the accuracy of the alumni database. (Summer 2021)
- <u>Athletics and Recreation:</u> Group Exercise Instructor for Indoor Cycle classes. (Present)

Programmer, Conservation International, VA
Summer 2020 & 2021
- Collaborated on a project designed to map coffee farm locations by applying AI algorithms to satellite data and imagery for the purpose of identifying ethically sourced coffee; worked on the Wildlife Insights project to create an open knowledge platform that aggregates and shares global wildlife data using AI analysis and techniques.

Programmer, Massachusetts General Hospital (Lab of Medical Imaging & Computation), MA
Summer 2019
- Collaborated on an AI project to improve the accuracy of computer-based detection of pneumothorax from chest x-ray images.

OTHER SKILLS, CERTIFICATIONS, AND INTERESTS

Society of Women Engineers, High School Mentoring Program
Northwestern University Blood Initiative, Chair of Marketing
Certified American Red Cross Lifeguard (+ First Aid/CPR/AED)
Certified Schwinn Indoor Cycling Instructor