

# Laird Stewart

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## COURSEWORK

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**Johns Hopkins Engineering for Professionals (Non degree seeking)** 2 Years

Electromagnetics, Fluid Dynamics, Plasma Physics, Machine Learning, Monte Carlo Methods

**B.S. Computer Engineering, Georgia Institute of Technology** 2 Years

GPA: 4.0. Algorithms, Computer Architecture, Embedded Systems, Robotics, Circuit Analysis

**B.S. Applied Math and Statistics, Emory University** 3 Years

GPA: 3.9. Minor in Economics. PDEs, Numerical Analysis, Computational Modeling, Linear Optimization

## WORK EXPERIENCE

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**Software Engineer, Metron** 2 Years

Metron provides applied mathematics research and scientific software to the DoD and intelligence community. I focus primarily on tracking algorithms. Across three projects, I've worked with particle filters/smoothers, expectation-maximization, RANSAC, and JDPA filters. I organize a monthly "Particle Filter Discussion Group" which reviews literature in the field. I primarily write back-end, scientific Java code.

**Data Science Intern, Equifax** 3 Months

Built a training pipeline for a Random Forest classifier of U.S. households in R/SQL, saving 1 month labor per year (the model was previously manually re-trained each quarter). Implemented hyperparameter tuning with a simple grid search. Optimized another application's SQL logic to eliminate 10 unnecessary queries.

## OTHER EXPERIENCE

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**Undergraduate Research, Emory University** 6 Months

"SIR Model of Time-Dependent Drug and Vaccine Distribution on COVID-19", SIAM Undergraduate Research vol. 14. Led four multidisciplinary undergraduate students to place first in an Emory COVID-19 modeling competition. Defined a system of differential equations and modeled them in Python to simulate drug and vaccine deployment. Directed technical communication between team and journal editors during revision of the 21-page manuscript

**Data Science Consultant, ERASE Child Trafficking** 1 Month

Placed first in a month-long data science competition hosted by Emory to help grow ERASE's Facebook outreach. Built linear regression and random forest models on 2500+ posts in Python to explore features driving engagement. Presented a 10-minute summary to ERASE on how to increase their engagement using 6 data-driven suggestions

**Tutor, Emory University** 1.5 Years

Tutored 10+ Emory undergraduates through 50-minute 1-on-1 sessions in linear algebra and introductory logic. Assessed each student's history and positioning to tailor the lesson, help set goals, and build a semester-long plan. Obtained a Level 2 tutor certification from the College Reading and Learning Association Tutor Training Program

## ADDITIONAL INFORMATION

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Skills: Java, Python, MATLAB, R, SQL, Git, Spring, Kafka, Docker, Maven, Embedded Systems

Awards: Eagle Scout, Tau Beta Pi, IEEE-Eta Kappa Nu, OAE Economics Honor Society, Emory Dean's List

Hobbies: Tennis, Squash, Rock Climbing, Mountaineering: summited 12 14,000 ft peaks, Skiing