

ALLAH-U-ABHA RODRIGUES

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Education

Yale University, New Haven, CT

Expected Graduation, May 2027

B.S. in Computer Science, Certificate in Data Science

- GPA: 3.72/4.00
- *Relevant Coursework:* Computer Science, Probability Theory, Theory of Statistics, Linear Algebra, Multivariable Calculus, Data Structures and Programming Techniques, Discrete Math, Full-Stack, Systems Programming.
- Secretary, Zeta Psi (Eta Chapter)

WORK EXPERIENCE

Yale Computer Society (Yalies.io Team)

Jun 2025 - Present

Software Engineer

New Haven, CT

- Expanded backend & search to reliably serve 3,000+ daily requests for 30,000+ student/alumni users by building paginated endpoints, adding request-level caching, and instrumenting basic monitoring (Next.js/Node + Elasticsearch).
- Improved directory/profile experience by shipping small, high-leverage features (query filters, profile views, contributor docs), reducing dev ramp-up time via concise API specs and runbooks.

Unlock Labs

Jun 2025 - Aug 2025

Machine Learning Engineer

Charlotte, NC

- Reduced marketing spend by 2% for a \$32M DTC brand by building a Streamlit-on-AWS analytics engine with demand forecasts, Monte Carlo scenarios, and channel reallocation recommendations using scikit-learn Random Forests.
- Improved leadership decision speed by packaging forecasts, scenario controls, and KPI tracking in a single dashboard with automated data refresh and audit logs.

HapSTR

May 2025 - Aug 2025

Software Engineer Internship

Los Angeles, CA

- Scaled a photorealistic 3D real-estate web app from ~200 to 1,000+ users by integrating CesiumJS with Google Photorealistic 3D Tiles in a Next.js/TypeScript stack and adding Street View handoff + click-to-building fly-to.
- Delivered sub-200 ms property lookups by designing cached, geospatial endpoints that fuse Zillow CSVs, ATTOM API data, and Microsoft Building Footprints with precise EPSG:4326 mapping and Haversine search.
- Increased listing-detail clicks by 35% and cut time-to-first-insight by 40% by prototyping Interior Transparency using PyTorch + Hugging Face to infer floor layouts and render 3D interior previews.

Curious Cardinals

Apr 2025 - Present

Software & ML Engineer Mentor

San Francisco, CA

- Delivered a full-stack CRUD app in Java/Spring Boot by mentoring a cohort of 4 seniors on OOP design (classes/interfaces, testing, CI) and portfolio-ready documentation.
- Built an NBA fantasy predictor to AUC ≈ 0.95 with a junior mentee by integrating 5 Kaggle datasets, cleaning features in pandas, training/tuning XGBoost, and shipped a Streamlit app for lineup exploration.

Projects

Statistical Salary Predictor | [Source Code](#) | [Demo](#)

Python | **pandas** | **scikit-learn** | **PostgreSQL**

- Cut RMSE by 20% vs. baseline and reached 0.91 AUC (band classification) by training on 60k+ Stack Overflow responses (2020–2024) with k-fold CV and targeted feature engineering.
- Enabled 50+ Yale users to run live scenarios via a Streamlit dashboard backed by PostgreSQL; improved negotiation outcomes by ~15% through on-demand insights and exportable comparisons.

TECHNICAL SKILLS

Languages: Python (Django, NumPy, Pandas, scikit-learn, PyTorch, Streamlit), JavaScript (React, Node.js, Express), TypeScript, Next.js, SQL, HTML, CSS, C, Java.

Developer Tools: Postman, AWS, Docker, Git, CI/CD, RESTful APIs, Web Scraping (BeautifulSoup), Jupyter Notebook, Heroku, WebSockets, Excel.

Spoken Languages: English (Native), Portuguese (Native).