

# Jammel Yeboah

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jammelyeboah.dev

## Education

**University of Virginia | Charlottesville, VA**

Expected Graduation: May 2026

Bachelor's in Computer Science and Statistics, Minor in Real Estate, GPA **3.89**

Courses: Computer Architecture, Compilers, Computer Networks, Data Structures and Algorithms, Discrete Mathematics

## Experience

**Netflix | Los Gatos, CA**

May – August 2024

**Software Engineer Intern**

- Built a C++ agent to collect AWS EC2 metrics via CloudWatch, feeding data into Netflix Atlas for 100+ internal services
- Engineered data pipeline with Java/Groovy scripts, aggregating 1TB+ daily metrics into PostgreSQL/Cockroach DB
- Developed React TypeScript dashboard visualizing service metrics, reducing resource allocation decision time by 50%
- Innovated a Slack bot alert system for latency, availability, and CPU performance anomalies, cutting average incident response time from 30 to 10 minutes and potentially saving Netflix millions in operational costs

**Zocdoc | New York, NY**

June – August 2023

**Software Engineer Intern**

- Engineered a full-stack multi-step questionnaire for dentist seekers, boosting bookings, appointments, and positive reviews
- Utilized React TypeScript for building front-end components and triage flow, and C# in introducing new GraphQL endpoints
- Conducted smoke, unit, and API testing, ensuring software stability and leading to a smoother user experience
- Established A/B testing metrics, monitored trends with Sentry and Datadog, and adjusted development strategy accordingly

**Natera | San Carlos, CA**

May – August 2022

**Software Engineer Intern**

- Engineered a Django-based Learning Management System, streamlining Continuing Education for employees
- Proposed and developed an automatic certificate generation system using Python, reducing certification time by over 50%
- Strategically utilized AWS S3 for the streamlined storage and organization of user media, certificates, and templates

**AbbVie | Worcester, MA**

March – May 2021

**Project Engineer Intern**

- Updated safety procedures per OSHA standards, contributing to 50% workplace injury reduction in Q3-Q4 2021
- Analyzed chemical storage and rust prevention processes, isolated flaws and proposed improvements to senior staff
- Engaged in agile practices including daily stand-ups, sprint planning, and one-on-one meetings

## Extracurriculars / Activities

**Hudson River Trading | Inside HRT Participant**

April 2024

**Citadel and Citadel Securities | Discover Citadel Participant**

April 2024

**USACO | Platinum Participant (C++)**

December 2023

**ColorStack | Member**

September 2023 – Present

**UVA Black Student Alliance | Academic and Career Development Committee**

September 2023 – Present

**National Society of Black Engineers (NSBE) | Member**

September 2023 – Present

## Projects

**32-bit Operating System**

April 2024 – Present

- Built OS from scratch, implementing process management, system calls (fork(), exec(), wait(), exit()) using C and Assembly
- Engineered a preemptive CPU scheduler based on the Completely Fair Scheduler (CFS) algorithm, utilizing red-black trees for  $O(\log n)$  task selection complexity
- Developed low-level interrupt handling and context switching routines for efficient multitasking and preemptive scheduling
- Plan to expand OS with virtual memory management (paging, TLB), multi-CPU support, and user-level threading library

## Skills

**Programming Languages:** Python (NumPy, Pandas, SciPy), C/C++, Java, C#, JavaScript, SQL, GraphQL, Bash, Assembly (x86)

**Tools and Technologies:** Git, AWS, Docker, Kubernetes, Linux, Node.js, React, Django, OpenMP, MPI, TensorFlow, PyTorch