Jammel Yeboah

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Education

University of Virginia | Charlottesville, VA   Expected Graduation: May 2026
Bachelor's in Computer Science and Statistics, Minor in Real Estate, GPA **3.89**
Relevant Courses: Computer Architecture, Regression Analysis, Compilers, Computer Networks, DSA, 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/CockroachDB
- 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

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 CFS algorithm, utilizing red-black trees for efficient task selection
- Developed low-level interrupt handling and context switching routines for efficient multitasking and preemptive scheduling
- Implemented two-level paging, memory isolation, dynamic page directory switching, and robust page fault handling

Market Microstructure Analysis – Cubist Hackathon Winning Project   *April 2023*
- Won "Best Project using Historical Market Book Data" at Cubist Hackathon for market insights and execution performance
- Developed a low-latency trading algorithm using order book dynamics and bid-ask spread analysis for fast execution
- Built a liquidity imbalance detector to exploit microsecond price inefficiencies, optimizing trade decisions in real-time

NFT Minting in Augmented Reality   *April – August 2022*
- Developed a cross-platform (Android/Windows) Web3 app using Solidity, C#, and Unity for creating NFTs in AR
- Implemented Solidity smart contracts for secure user authentication, NFT creation, and Polygon network integration
- Designed an immersive AR experience for loot box placement, NFT minting, and storage in users' decentralized wallets

Extracurriculars / Activities

USA Computing Olympiad (USACO) | Platinum Participant   *December 2023*
Hudson River Trading | *Inside HRT Participant*   *April 2024*
Citadel and Citadel Securities | *Discover Citadel Participant*   *April 2024*
UVA Black Student Alliance | Academic and Career Development Committee President   *September 2023 – Present*

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