ROY KIPROP KONGWALEI

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EDUCATION

Brandeis University   **Expected: May,2028**

Major: Bachelor of Science, Computer Science,Finance and Business   **Honors:** Dean's list
Relevant Coursework: Object Oriented Programming(Java), Data Structures and Algorithms, Discrete Structures, Python Programming,Web & Mobile Development, Machine Learning
Certifications: AWS and Udacity AI & Machine Learning, Machine Learning I –Harvard University, Intro to iOS Development & Technical Interview Prep–CodePath

EXPERIENCE

Brandeis Library Computer Services   **Brandeis University**
Student Technology Assistant
   October 2024 - present
- Diagnosed and troubleshoot 30+ network, printing, and technical problems per week
- Implemented monitoring of the system, ensuring integrity and availability of critical university assets, supporting compliance with university IT policies.
- Provide quality customer service with general support for hardware and network connections to over 500 users a month

Tutor (Python & Calculus) - Brandeis Academic Services   **Brandeis University**
   Sep 2024 - present
- Provided one on one and small group tutoring (up to 3 students) to strengthen subject understanding and prepare for exams.
- Reviewed course materials by discussing concepts, solving problems, and guiding students through worksheets and assignments.
- Helped students improve their grades by an average of 15% through structured office hours and personalized academic support.

Investment Analyst- Brandeis Investment Group   **Brandeis University**
May 2025 - August 2025
- Analysed financial statements, market size, competitive landscapes and management teams.
- Constructed detailed operating models to forecast revenue and free cash flow for a target company.
- Conducted risk assessments on potential investments, evaluating operational and market risks to inform strategic decisions and mitigate financial exposure
- Modeled various investment returns under multiple operating and exit scenarios to evaluate potential outcomes.

Financial Analyst Intern - Public Service Commission of Kenya   **Nairobi, Kenya**
   July 2023 - July 2024
- Leveraged Excel and SQL to perform data validation and test the accuracy of financial datasets, ensuring data integrity for reporting and compliance purposes.
- Monitored and analyzed financial data and competitor performance to support financial planning and policy development.
- Conducted variance analysis and prepared monthly financial reports for senior management, highlighting Key Performance Indicators (KPIs) such as cash flow and expense ratios.
- Utilized Enterprise Resource Planning systems for accounts receivable tracking and general ledger reconciliation.

PROJECTS

Financial Data Alert System - *Web development*
- Built a real-time alert platform that notified 300+ users of major financial data changes (stock prices, interest rates, exchange rates) using full-stack web development.
- Processed over 4,000 data points per minute by designing efficient parsing, scheduling, and subscription logic for financial Application Programming Interfaces.
- Reduced Application Programming Interface latency by 99% through server-side caching and optimized backend query management.
- Implemented secure REST Application Programming Interface endpoints with token-based authentication, and stored user-specific alert preferences and subscriptions in MongoDB AI.

AI Pest Detection System - *Computer vision*
- Translated model outputs into actionable insights by integrating a pesticide recommendation engine, directly addressing the user's goal of reducing crop loss and improving yields.
- Developed an end to edge AI solution for agricultural pest identification, training and deploying a lightweight deep learning model to empower people in the Uasin Gishu.
- Delivered an 83% accurate model optimized for low compute environments, enabling real-time pest detection on mobile devices.

3D Portfolio Showcase | *Web development*
- Built an interactive 3D portfolio website using React.js, Three.js, and React Three Fiber, featuring responsive design and immersive UI animations to showcase projects and skills
- Implemented scroll-triggered animations and micro-interactions with GSAP and Drei, delivering an engaging and visually dynamic user experience.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Java, SQL, Dart, Swift, C++,
Frameworks & Tools: Git, Node.js, Next.js, Flutter, SwiftUI, Tailwind, CSS, MySQL, MongoDB, Docker, AWS, Azure, JUnit, Postman, Figma,Token-based authentication, Backend query optimization,Angular,Hardware Diagnostics, Network Troubleshooting, System Monitoring,SOLIDWORKS,EKS
Data & Analytics-Microsoft Excel (Advanced), Google Analytics, KPI Tracking,Financial Modeling, Portfolio Management,Investment Banking, Accounting, ERP Systems

HONORS

- Bronze Medalist, Kenya National Track & Field Championships (1500m) | 2021
- National Champion, Kenya Science & Engineering Fair (KSEF) | 2019