# HABINEZA NGABO YVES DAMAS

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### **PROFILE**

Computer Scientist with a strong foundation in programming, AI, and networking. I have hands-on experience in developing mobile and web applications, gained through internships, academic projects, and personal endeavors. My expertise lies in both front-end and back-end development, machine learning, and network configuration. I am passionate about solving real-world problems through technology and am eager to contribute to innovative projects in dynamic environments.

I co-founded Alipata (<a href="https://alipata.com/">https://alipata.com/</a>), one of Uganda's leading online shopping platforms, and am currently working on several other projects that are soon to be launched.

### **EDUCATION**

### Cavendish University Uganda, Kampala

**August 2021 – June 2024** 

**Program:** Bachelor of Science in Computer Science *Award:* Bachelor's Degree in computer science

# **Kanzu Code Foundation, (Online Bootcamp)**

**October 2020 – March 2021** 

**Program:** JavaScript Software Engineering Bootcamp

Award: Bootcamp Completion Certificate

### Lanzhou Jiao Tong University, China

**August 2017 – May 2020** 

**Program:** Civil Engineering (Undergraduate coursework)

I completed two years of study in Civil engineering, plus one year of Chinese Language.

## College Saint Andre, Nyamirambo

February 2014 – November 2016

Advanced level (A-level) in science with a combination of Physics, Chemistry, and Mathematics (PCM) *Award:* Rwanda Advanced Certificate of Education

### Groupe Scolaire officiel de Butare (INDATWA), Huye

February 2011 – November 2013

Ordinary level of Education (O-level)

Award: Ordinary level Certificate of Completion

### **EXPERIENCE**

### Mobile Application Development: NeuralLabs AI Inc.

January 2024 – Present

- During the first six months of my internship at NeuralLabs AI Inc., I contributed to developing a mobile application called BantuEd to enhance the educational experience for African children from Kindergarten to Level 12. The app integrates cutting-edge technologies like virtual reality (VR) and augmented reality (AR) to provide students with an engaging and interactive learning platform.
- Initially, I focused on front-end development, building and implementing the app's screens using the React Native framework and JavaScript to ensure the user interface (UI) was functional and intuitive for young users.
- After completing my six-month internship, I was retained to continue working on the project, transitioning to work on more advanced features such as AR and VR, while still focusing primarily

- on front-end development. My efforts have contributed to making the app more interactive and user-friendly, improving the overall user experience.
- Moving forward, I will take on back-end development tasks, including integrating AWS and other server-side technologies to enhance the app's performance and scalability.

### **Co-founder and Software Engineer: Alipata (https://alipata.com/)**

May 2020 - Now

- Together with partners, we initiated the idea for an online shopping platform similar to Taobao for East Africa during our time in China, which later became Alipata.
- After acquiring the necessary skills, I became a Software Engineer, working on platform optimization and enhancements to improve user experience and functionality.
- Successfully raised \$100,000 in funds, supporting infrastructure development and marketing, significantly increasing platform traffic and expanding the user base within the first 12 months.

# **Networking training: Huawei**

**May – July 2022** 

- After completing my first year at university, I undertook an 8-week virtual training course at Huawei, focusing on computer networks and network configuration. This intensive program provided me with hands-on experience in various networking concepts and practical skills.
- During the training, I learned to set up and manage network devices such as routers, switches, and firewalls. Additionally, I gained proficiency in configuring Virtual Local Area Networks (VLANs) to segment network traffic, using the Cisco Packet Tracer simulator to practice and refine these skills.

### **SKILLS**

# Programming languages and frameworks

- Python
- Java
- JavaScript
- React.is
- React Native
- HTML/CSS
- PHP
- MySQL

# **AI & Machine Learning**

- Computer Vision (OpenCV, YOLO)
- Machine Learning Algorithms
- Chatbot development

# **Networking**

- Network Configuration
- VLAN
  Management
- Network Security

# **Documentation tools**

- Microsoft Word
- Microsoft Excel
- Microsoft Access

### **PROJECTS**

### **Web Application Development**

### **November 2023 – April 2024**

- For our final graduation project, my colleague and I developed a comprehensive web-based application called *Lost&Found.Docs*. The main purpose of this application is to assist users in reporting and searching for lost documents, streamlining the process of reuniting lost items with their owners. I played a key role in both front-end and back-end development, ensuring the application provided a user-friendly interface and robust functionality. This involved designing intuitive navigation, implementing search algorithms, and creating a seamless reporting system to facilitate efficient document recovery.
- To enhance the efficiency of the search functionality, we incorporated AI-powered algorithms for document matching. The AI system leverages machine learning to predict and suggest possible

- document matches based on user inputs, improving the accuracy of results over time. This automation reduces the time and effort required for users to manually filter through results, making the recovery process more efficient.
- We employed a range of technologies to achieve this. We used PHP scripting language and MySQL for back-end development to handle database management and server-side operations. We utilized JavaScript, HTML, and CSS on the front end to create an interactive and responsive user interface. Additionally, we leveraged tools such as Git and GitHub for version control, which greatly improved our collaboration and project management. This project enhanced our technical skills and taught us the importance of teamwork, problem-solving, and user-centered design.
- The application is in its final stages of development and will soon be deployed. It is expected to improve document recovery efficiency and facilitate numerous successful reunions of lost items through the integration of AI and user-friendly design.

#### **Animals Detection Model**

**August – October 2023** 

- As part of my Machine Learning class, I undertook a project to develop a sophisticated model capable of detecting various wild animals using YOLOv7. The model can identify a wide range of species, including lions, tigers, elephants, zebras, birds, snakes, and many more. The primary goal was to create a reliable detection system that could assist in wildlife monitoring and conservation efforts. Throughout the development process, I focused on training the model with diverse datasets to ensure high accuracy and robustness in different environments.
- The resulting model effectively detects and classifies animals by drawing bounding boxes around each detected creature and labeling them by name. This functionality was achieved with an impressive accuracy rate of 88%, demonstrating the model's reliability and precision. The project not only enhanced my understanding of computer vision and deep learning techniques but also provided practical experience in implementing machine learning algorithms for real-world applications. By integrating this model into wildlife monitoring systems, it can significantly contribute to conservation efforts by providing accurate and timely information on animal movements and behaviors.

### **Chatbot Development**

June – August 2023

- As part of the Artificial Intelligence and Expert Systems class, I undertook a project to develop a chatbot for the Quality Assurance office at Cavendish University. The chatbot was designed to handle student inquiries in the absence of a QA officer. Utilizing Dialogflow, I developed and integrated the chatbot into the Quality Assurance section of the university's website. The chatbot effectively provides answers to queries related to quality assurance, mirroring the responses of a QA officer. It is capable of handling a wide range of questions within its training scope and efficiently holds any unrelated inquiries for the attention of a QA officer.
- The chatbot reduced the workload of the Quality Assurance Office by 60%, ensuring students received timely responses to their queries.

### **Java Desktop Application Development**

January – April 2023

- **D&J Brothers LTD**, a spare parts store in Kampala, hired me for a short period to develop a desktop application to manage the company's sales processes. The application provides comprehensive functionalities to streamline sales operations, including:
  - Tracks stock levels, manages product information, and alerts for low-stock items.
  - Records sales transactions, generates sales reports and analyses sales trends.
  - Maintains a database of customer information, purchase history, and contact details.
  - Implements secure login for different user roles (Admin, Sales, Sellers) to ensure data security and user accountability.
  - Generates invoices and receipts for customers, ensuring accurate and professional documentation.
- The application features three distinct, user-friendly portals—Admin, Sales, and Sellers—each designed to enhance specific aspects of store operations. The **Admin portal** allows for

comprehensive management of inventory, user roles, and overall system settings, providing administrative oversight and control. The **Sales portal** is tailored for sales representatives to efficiently process transactions, access customer information, and track sales performance in real time. The **Sellers portal** enables store staff to manage and update product listings, handle customer queries, and process orders. Feedback from users was actively incorporated to refine these portals, ensuring that they deliver a seamless and efficient experience by improving usability, functionality, and overall operational efficiency.

• The system improved inventory tracking and reduced stock discrepancies by 80% within the first quarter of implementation.

## **LANGUAGES**

English: FluentChinese: ProficientFrench: Intermediate

• Kinyarwanda: Mother tongue