

# Christopher Dare

CMU '21 grad with experience building consumer and enterprise products as an analyst and engineer. Aspiring tech leader, great writer and communicator. Built an ML fraud detection system for customs operations at Rwanda's Revenue Authority. Seeking to work with a passionate tech team on a mission to build/improve quality data-driven systems loved by users.

(233) 262-260-986  
(Mobile - primary)  
(250) 786-745 117  
(Mobile)  
[chrisdare@live.com](mailto:chrisdare@live.com)  
GitHub: @dexios1

## EXPERIENCE

### Clearspace Labs, Accra/Remote (Ghana) — Software engineer | Product development manager

MARCH 2021 - PRESENT

Leading the development of a SOTA medical record system based on [FHIR](#) v4 standard. Currently supporting 20K active patients in Ghana and processing \$0.3M/mo in transactions

- Ran a code port to upgrade existing EMR APIs to a new set of APIs running on FHIR data structures in 1 week. Operation reduced development time by 2 months
- Firmed up the team process, structure and tooling to ensure clear vision, productivity and faster releases
- Defined feature specifications, system architecture and test cases for data migration, COVID-19 procedures, billing and payments, virtual care, use case error detection, multi-tenant analytics and role based access control for doctors
- Created tutorials and user manuals for end users
- Designed presentations to communicate progress and source feedback from organization leaders, product champions and end-users

### Carnegie Mellon University, Remote — Graduate student researcher

OCTOBER 2020 - JANUARY 2021

Collaborated with [Prof. Rita Singh](#) and 3 coursemates from my [deep learning course](#) to generate and evaluate the world's first set of limericks generated by artificial intelligence. Our results were featured on CMU's website from Feb 15 - 20, 2021. Generated poems available at <https://www.amazon.com/dp/B08TV36KF7>. Project video available [here](#)

- Developed a metric for scoring and improving poems based on rhyming
- Others: Built an autograd deep learning toolkit akin to [PyTorch](#) as part of course work. Implemented autograd, MLPs, CNNs, and RNNs. Toolkit available [here](#)

### Rwanda Revenue Authority, Kigali (Rwanda) — Data Scientist (intern)

MAY 2020 - AUGUST 2020

ML for fraud detection in international trade: Prototyped an ML scoring system as a replacement for a rule-based selectivity model for identifying fraudulent consignments

**Objectives:** Facilitating trade and increasing revenue gains

**Model performance:** 90% precision, 95% recall

**My contributions:**

- Conducted exploratory data analysis with the team and identified useful features
- Co-wrote functions for ETL and model fitting with pipelines

## SKILLS

- [Data science](#)
- [Machine learning](#)
- [API development](#)
- [Writing](#)
- ETL
- Software design and testing
- Customer & market discovery
- OOP
- Listening and user empathy
- Speaking & presentation
- Remote collaboration
- Defensive programming

## TECH TOOLKIT

- **Data science**  
SQL, Numpy, pandas, scikit-learn, joblib, typer, pytorch, tensorflow, spacy, streamlit, nltk...
- **Web and API development**  
Djangorest, FastAPI, HTML, CSS, Postman
- **Programming**  
Python (advanced)  
SQL (intermediate)  
C++ (familiar)
- **Presentation / UX**  
Google slides (advanced)  
Figma (intermediate)  
Adobe XD (familiar)

- Created a cli to train, review and save ML model updates + evaluation reports
- Created an ML REST API to determine the appropriate classification channel for a given declared consignment in compliance with WTO standards. Demonstrated ease of integration to the RRA's existing applications via a streamlit app demo

## Inflexion Capital, Accra (Ghana) — Technology analyst

JULY 2017 - MAY 2019

Contributed to the success of a series of projects in partnership with [IC Asset Managers](#) and [IC Securities](#) on internal projects and [MTN Ghana's IPO](#):

- Saved the firm \$24K+ in hiring costs by automating financial statement imports, trade settlements, and quarterly reporting to fiduciaries
- Designed and managed the development of a [trustee portal](#) to provide secure information search and retrieval for fund trustees
- Devised solution architecture for a retail investment fund product with management. Projected to allow the firm to manage over \$100mn more in assets
- Performed user testing on software updates during MTN Ghana IPO share offer
- Analyzed and automated processing and synchronization of text and image data from 90,000+ IPO subscribers
- Wrote SLA technical, policy documentation for the IPO underwriter (IC Securities)
- Ran and completed financial reconciliations for all IPO USSD subscriptions
- Delivered a presentation to a corporate client on 2017 Q3 fund performance and 2017 Q4 outlook

## EDUCATION

### Carnegie Mellon University — Ms. Information Technology (CIT scholar)

JULY 2019 - JUNE 2021

Worked 2 jobs whilst completing my full time degree on a partial scholarship

Moderator: Organized and moderated guest lectures on AI/ML with experts from [Netflix](#) and [Microsoft](#)

### Valley View University — Bsc. Computer Science

SEPTEMBER 2013 - JULY 2017

President and Senator, Computing Science Students' Association (2016-2017)

Admitted to the [SEO Africa](#) internship program at Inflexion Capital

## PUBLIC PROJECTS

**Serenity** — [Easy access to world-class healthcare from anywhere](#)

**Zoho Desk (Python)**— [Python client for Zoho desk \(with REST API demo\)](#)

**MyTorch** — [Pytorch clone \(Autograd, MLPs, CNNs, RNNs\)](#)

**AiBBA** — [Evaluating and improving poetry generation by GPT-2](#)

**Firelord** — [A simple tutorial for creating machine learning apps from scratch](#)

- **Project, Devops, Cloud**

Linear, Docker

Git: Gitlab, Github

Digital Ocean, AWS, Linux

## COURSES

- Strategic use of digital information in enterprises
- Privacy, policy, law and technology
- Data structures and algorithms
- Artificial neural networks
- Deep learning
- Speech signal processing
- Natural language processing
- Research methods
- Intro to HCI
- Information security

## VOLUNTEER WORK

- **Moderator**

[Fireside chat with H.E Paul](#)

[Kagame](#), President of Rwanda

- **Facilitator**, rural

outreaches to support 200+ children in Ghana

- **Software engineer**, [Novi](#)

## AWARDS AND PROGRAMS

- **Best behaved student**

(Valley View University)

- **Secure and Private AI**

**Scholar**, Udacity

- **SEO Africa** internship program

## LANGUAGES

- **English** (Native)

- **French** (Basic reading proficiency)