

Joseph Boateng Oti

Full stack software engineer with experience in generative AI, langchain, langflow, AWS, Django, flutter, react and more.

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Professional Summary

I have a passion for building systems that impact people. As such I am always researching new areas to expand my reach and put my skills into use, bringing the best products to clients and consumers.

Willing to relocate: Anywhere

Work Experience

Backend Engineer

IBL Education | New York, NY

October 2023 to Present

1. Finetuned Various large language models to suit custom applications
2. Built backend solutions with Django, Postgresql, OpenEdx and langchain
3. Built voice call solutions between clients and AI agents both with livekit and custom solutions with coturn and aiortc
4. Build ai agent integrations to social platforms including discord, Webex, WhatsApp, slack etc
5. Implemented video rendering in backend using models including wav2lip and sad talker
6. Prompt Engineering with langchain, langflow, Google ADK, OpenAI Agents SDK, and hugging face models.
7. Built benchmarking scripts and wrote effective unit and integration tests
8. Built wrappers around OpenClaw, and NemoClaw as backend agents for our client facing automations and chat.

Online Tutor, Software Programming

YouTube Content Creator and Private lessons

September 2019 to Present

- Teach programming on my YouTube channel, Joetib Codes (<https://www.youtube.com/channel/UCxDveQ1rCctZsIJJ7WE52fg>).
- Recorded and edited videos for the channel
- Built a video generation tool to generate videos from code snippets
- Held in person online python programming class for various individuals.

DevOps and Backend Engineer

Terateck Solutions | Kumasi, Ashanti

September 2022 to February 2024

- Design and implement CICD pipelines with Gitlab CI, GitHub Actions and Jenkins
- Provision infrastructure using Terraform, Terragrunt and AWS
- Manage Kubernetes cluster (EKS)
- Build web services with Django and FastApi
- Quality Assurance and automated tests with Selenium and Beautifulsoup

Quality Assurance Test Engineer

Aurelian Data SARL

February 2023 to July 2023

- Implemented unit tests for various software components
- Implemented integration tests with external services and apis
- Implemented Site Reliability tests with Selenium and Beautifulsoup
- Generated comprehensive reports on application tests
- Implemented CI testing using github actions

Freelance Web Developer

Kumasi, Ashanti

January 2020 to September 2022

- Built and deployed web applications with django and cpanel for clients
- Implemented Search Engine Optimization
- Integrated multiple apis including for payments, data querying, etc.
- Implemented automated tests
- Maintained these projects till the end of maintenance duration
- Clients include Dequaye Web Solutions(envestorr.com), Association of Computer Engineering Students, KNUST(acesknust.org) and Evangelical Christ Foundation Church, Kintampo (ecfcyouth.com).

Full Stack Developer

FABAMALL | Drobo, Ghana

April 2020 to March 2021

- One of two engineers that handled building of <https://fabamall.com>, a multivendor ecommerce site with numerous components and features including, payment processing, email processing, compression, etc.
- Implemented chat system, forum, payment processing, email messaging, and Image file compression.
- Interacted with external payment API

Teacher

BEAUTIFUL GATE INT. SCHOOL | Kintampo

September 2017 to August 2018

- Taught English Language at the Junior High School Level
- Graded student papers and assignments to track student progression.
- Enforced discipline on campus and during off-campus school trips following code of conduct and student handbook.
- Supervised students throughout day, both in classroom and outside during breaks.
- Encouraged student critical thinking and discussion using variety of teaching techniques.
- Developed lessons, activities and materials to cover required course material.

Education

Computer Science (MPhil)

Kwame Nkrumah University of Science and Technology

January 2023

Computer Engineering (Bachelor's degree)

Kwame Nkrumah University of Science and Technology

September 2018 to September 2022

Skills

Web services REST Responsive web design Microservices APIs Cloud infrastructure Queues (data structure) Scripting Version control Docker Proficiency building CLI PostgreSQL Database design Agile Redux Algorithm design Project management methodology Communication skills SDLC Agile software development Computer Networking HTML5 Image processing with Pillow Iterator design pattern GitLab Searching algorithms Flask Server Deployment and Management. Scalable systems CSS Google Workspace Computer operation flask. Vue.js Mobile design Software development - Software development experience (3-5 years) S3 Computer skills TypeScript Selenium Adapter design pattern DynamoDB Singleton pattern Application development Tutoring SQLite Factory method pattern Observer pattern HTML flutter Prototype design pattern MariaDB Back-end development Software deployment Bash Good Communication Skills. Google Cloud Platform Git Microsoft SQL Server Linux Stacks (data structure) Redis Langflow C Express.js Node.js Feature-Driven Development (FDD) Team management Arrays (data structure) Computer science AWS Full Stack Web developer Windows Skilled in JavaScript, C, Python and dart programming languages. Mobile and Desktop application Design Shell Scripting Abstract factory design pattern Distributed systems GitHub Heroku Web development Algorithms JavaScript AI Full-stack development Waterfall Mentoring Test-driven development Dart Terraform Large-scale user base software development - Largest user base software developed for (10,000-50,000 users) Decorator design pattern Scrum Graphs (data structure) Template method design pattern Rapid Application Development (RAD) (project management methodology) Kubernetes Web design UNIX Data structures Pandas Flutter Image Editing and Design with Adobe Photoshop Graph traversal algorithms Confluence DevOps PowerShell Presentation skills Good Team work skills. Databases Jira Software development - Software development experience (3-5 years) CI/CD Design patterns Sorting algorithms MongoDB Application design RabbitMQ Unit testing Software troubleshooting Software engineering Langchain NoSQL Scalability Tutoring and mentoring RESTful API Hash maps (data structure) Factory experience Information security Managing software development teams - Largest software development team managed (11-20 team members) Jenkins SaaS MVC Project management Analysis skills Integration testing Go React MySQL SQL Bitbucket Generative AI State design pattern Image processing Dynamic programming design fastapi Adobe Photoshop Python Django

Languages

English

Links

<https://twitter.com/Otiboatengjoe>

<https://github.com/Joetib>

<https://linkedin.com/in/joseph-oti-boateng-4a7140207>

Certifications and Licenses

Terraform Certified Associate

November 2022 to October 2024

Publications

Design and Implementation of a Local Area Network Based Multimedia Messaging

<https://ejournal.pnc.ac.id/index.php/jinita/article/view/1545>

December 2022

- Addressed the topic of offline communication with local area networks
- Built prototype using flutter and websockets
- Established features such as routing with message passing and encryption of messages, file transmission in junks using websockets.
- Implemented automatic scanning for available devices using port scanning