

Jofin F Archbald

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I am a final year B.Tech Electronics and Communication (ECE) student with a CGPA of 8.58/10 graduating in March 2023. Having created 3 open-source libraries apart from my regular coursework, I have developed a strong foundation in software engineering. Also, I have been a **Technical Contributing Member** of the **Python Software Foundation (PSF)** for more than 2 years. I was also a former member and mentor at Codechef-VIT chapter for 2 years. On my own initiative, I have completed 22 engineering courses from reputed international universities and firms.

EXPERIENCE

INTERNSHIP

Backend Intern At **Findmind Analytics Pvt. Ltd.**

Aug, 20 - Oct, 20

- Initiated Natural Language Processing(NLP) models and monitored them on the company's cloud server.
- Developed schedulers for scraping government official websites, detected changes occurring from time to time and emailing data to the officials.
- Configured CUDA from scratch for the company's machine learning (ML) environment for NLP model training.

Technologies used: *Python, Spacy, NLTK, SMTP mail, BeautifulSoup, Azure Vscode Platform, CUDA*

OPEN SOURCE PROJECTS

Utile Package | *Python, PyPi, Poetry, Unit testing, Github Workflow(CI), CircleCI, CodeCov, Mkdocs, Rust-lang bindings*

- Developed a python package which eases code flow using decorators.
- Automated concurrency pipelines can be built in a single line instead of developing parallel process pools for execution.
- Recognized python package accepted by the Python Software Foundation (PSF) and deployed in PyPI.
- Lines of code (1122); code coverage 96%; version 1.1v (2 revisions); **30 downloads/month**; 2020-present.

Pcmd CLI | *Python, Pypi, Poetry, Pytest, Flake8, MyPy, Typer, YAML Config, GitHub Workflows, Material Mkdocs, CodeCov*

- Developed a terminal command shortener for developers to store terminal commands in custom names.
- Implemented with multiple features for adding, updating, removing and using commands.
- Documented and tested package. And deployed in PyPI.
- Lines of code (1869); code coverage 98%; version 2.3.0 (5 revisions); **40 downloads/month**; 2021-present

Medical Suitcase | *Python, Flask Framework, Spacy, Google Cloud Platform, ChartJs, Crypto-JS, Ngrok, Heroku, Fast2sms*

- Built a healthcare-as-a-service platform where medical records are stored in a secure environment.
- Developed a NLP API that extracts disease terms from the report to provide personal medication.
- Data is collected for advanced data analytics.
- Lines of code (5694); **awarded the best healthcare hack**; the project is **published as a research work**; 2021-2022

Iris Says | *Python, Sklearn, Flask, Numpy, Pandas, Unit testing, Pyplot, Bootstrap*

- Built an educational tool and minimalist platform for learning, understanding, and realizing Iris Flower Classification.
- Developed with inbuilt graphical visualizations and an on-spot prediction system.
- Trained 7 different ML (K-Neighbors Classifier, Logistic Regression, Random Forest Classifier, SVM, Multinomial Naive Bayes etc.) models and created an isolated prediction system; the user can select each model and predict the species.
- Lines of code (1204); Jul 2020-Aug 2020.

SKILLS

Languages	Python, Java, C++, HTML/CSS, Javascript, Rust(basics), Matlab
Domains	Full-stack development, Open Source Development, Data Structures and Algorithms (DSA), Machine Learning, Artificial Intelligence, Deep Learning Networks (DLN), Command Line Interface (CLI)
Frameworks	Django, ExpressJS, Flask, FastAPI, Typer, Tensorflow, Spacy, SQL, MongoDB
Development Tools	CircleCI, CodeCov, Git, Github Projects, Github Workflows, Agile Kanban, Postman

PUBLICATIONS

Blockchain-Based AI-Assisted Hospital Management System

International Research Journal of Engineering and Technology

- I am the primary author of the journal article on a healthcare-as-a-service application which solves the problem of data integrity using blockchain technology. It is about the storage of healthcare data of individuals in a centralized blockchain database by which data tampering is avoided by anonymous people. The records from the Database are then verified using the data from the blockchain.

AWARDS AND RECOGNITIONS

Technical Achievements

- **Technical Contributing Member at PSF:** Nominated as the Technical Contributing Member at the Python Software Foundation (PSF) for my work in utile package (July 2020 - present).
- **Healthcare Track winner in Technica 2021:** Won a hackathon conducted by ISTE-VIT. My team won the Healthcare track prize for the project Medical Suitcase.
- **UI/UX winner in Parallax 2020:** Won a hackathon conducted by TEC-VIT and won the Design track prize.
- **Mentor in Codechef-VIT :** Mentored 4 students in the field of ML pipelines, and API development. Made them capable of building independent projects (Oct 2020 - Apr 2021).
- **School rank #3 in ISC:** Ranked 3rd in Indian School Certificate (ISC) board examination (12th 2019) with 95.2%.
- **100% in Computer Science:** Achieved 100% in Computer Science in the ISC board examination (12th 2019)
- **Student reporter:** Nominated in school (2018). I speak and negotiate various topics with teachers.

Extracurricular Achievements

- **Winner in Root Notes 2020:** Won Second Place in a Music Competition for my solo composition song.
- **Composed Music for Wrist ShortFilm 2019:** Music Composer and Sound effects director for the short film wrist.
- **Film Composer in School Level:** Composed music for 2 short films in school festivals.
- **Best Cultural Award 2019:** Awarded 'the best cultural award' for being head of music, band leader, and red team leader in western and classical music.
- **Sports:** District player in shotput and basketball in 2014.

CERTIFICATIONS

I have completed 22 engineering courses on the coursera platform from reputed universities and firms:

Course Name	Sub Courses	University	Grade (%)	Year
<u>Python for Everybody Specialization</u> (Intermediate)	5	University of Michigan	95.00	2019
<u>Algorithmic Toolbox</u> (Intermediate)	1	University of California San Diego	62.11	2020
<u>Object Detection with Amazon Sagemaker</u> (Intermediate)	1	Coursera Project Network	100.00	2020
<u>Understanding Deepfakes with Keras</u> (Intermediate)	1	Coursera Project Network	100.00	2020
<u>Basic Statistics</u> (Beginner to Intermediate)	1	University of Amsterdam	88.33	2020
<u>Crash Course on Python</u> (Beginner)	1	Google	95.50	2020
<u>Google Operating System: Becoming a power user</u> (Beginner)	1	Google	98.60	2020
<u>Web Application Technologies and Django</u> (Beginner)	1	University of Michigan	100.00	2021
<u>Creative Thinking: Techniques for Success</u> (Beginner)	1	Imperial College London	88.22	2020
<u>Foundations of Project Management</u> (Beginner)	1	Google	98.50	2021
<u>Introduction to Project Management</u> (Beginner)	1	Coursera Project Network	100.00	2020
<u>Introduction to Docker: Build Your Portfolio Site</u> (Beginner)	1	Coursera Project Network	100.00	2020
<u>Java Programming: Solving Problems with Software</u> (Beginner)	1	Duke University	90.58	2020
<u>Programming Foundations with JS, HTML and CSS</u> (Beginner)	1	Duke University	97.50	2020
<u>Mathematics for Machine Learning Specialization</u> (Beginner)	3	Imperial College London	95.00	2020
<u>Object-Oriented Data Structures in C++</u> (Beginner)	1	University of Illinois	91.60	2020

EDUCATION

Vellore Institute Of Technology

Bachelor of Technology, Electronics and Communication Engineering | CGPA: 8.58* / 10

Vellore, India

Aug,2019-Mar, 2023

Major Subjects: Artificial Intelligence(AI), Neural Networks, Object-Oriented Programming, Python Programming, Java Domain Analyst, Digital Signal Processing (DSP), Computer Networking, Computer Organization and Architectures, Statistics for Engineers.

* I am available for work/internship since I have completed all my courses for the engineering degree.