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SUMMARY

Software Engineer with strong experience in building scalable full-stack applications, AI-driven tools, and OCR pipelines using Python, FastAPI, React, and AWS. Proven track record in deploying production-grade systems and conducting impactful research in computer vision and medical imaging. Passionate about solving real-world problems with clean architecture and optimized systems.

EDUCATION

XIM University

Aug 2020 – Mar 2024

B.S. - Computer Science and Engineering

Bhubaneswar, India

Relevant Coursework: Data Structures and Algorithms, Software Development Lifecycle, Object Oriented Programming, DBMS, Computer Networking, Web Development, Computer Vision and Image Processing, Operating Systems, Parallel and Distributed Computing, Networking and Security

PROJECTS

LINQ 🔗 | *Socket.IO, ReactJS, ExpressJS, MongoDB, NodeJS, Mongoose, JWT, Zustand, Docker, nginx, GitHub Actions(CI/CD)*

- Real-time chat app with **Socket.io** and **MongoDB**; personal/group messaging and **file/image uploads** via **Multer**.
- Implemented **JWT-based** secure **authentication** and **session management** with modular **API routes**.
- Containerized **ReactJs**-based frontend (served via **nginx**) and **Node.js** backend using **Docker** for consistent multi-environment deployment.
- Integrated **GitHub Actions** for **CI/CD** with Docker image versioning, security scanning (Trivy), and automated push to **Docker Hub**.

CV SCANNER 🔗 | *FastAPI, Python, ReactJs, OpenAI API, AWS (EC2, RDS PostgreSQL, VPC, NAT Gateway, ELB, S3), PyMuPDF, python-docx, nginx*

- **AI-based resume optimizer** with **FastAPI**, **ReactJS**, and **OpenAI**; reduced manual effort by **70%**.
- Secured **authentication** and **session management** with **OAuth2 + JWT**; deployed **3-tier architecture** in **VPC** with **NAT Gateway** and **RDS PostgreSQL**.
- Deployed on **EC2 + ASG**, load-balanced with **ALB** to ensure **high availability** and handle traffic surges efficiently.
- Used **PyMuPDF** and **python-docx** for resume parsing; assets managed via **S3**, traffic served through **nginx**.

EXPERIENCE

Computer Vision & Medical Imaging

2022 – Feb 2024

Research Associate

XIM University, Bhubaneswar

- * Developed **OCR** pipeline achieving **95%** text extraction accuracy using **KerasOCR/EasyOCR** integration, enabling accessibility tools for visually impaired through image-to-text conversion. Engineered CNN architectures trained on **ICDAR/COCO-TEXT** datasets, optimizing multi-orientation text recognition for complex document layouts
- * Conducted large-scale **neuroimaging** analysis of **3,055** brain MRIs (**2,206 PD patients/849 controls**) using MATLAB & CAT12, identifying structural biomarkers for early Parkinson's detection. Discovered gender-specific variations in gray matter density through voxel-based morphometry, contributing to personalized PD diagnostic frameworks
- * Automated MRI processing pipeline reduced analysis time by **40%** while maintaining **99%** data integrity across PPMI dataset specimens

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C++

Frameworks: React, Node.js, Express.js, FastAPI, Flask, Socket.io, Langchain

Databases: SQL, PostgreSQL, MySQL, MongoDB

Cloud & DevOps: AWS (EC2, S3, RDS, DynamoDB), Docker, Kubernetes, CI/CD, Agile, SDLC

Tools: Git, Postman, VS Code, VMware, LLMs

CERTIFICATIONS

• AWS Technical Essentials

AWS, Nov 2023

• The Complete Full-Stack Bootcamp

Udemy, Nov 2024