Chakravarthi Nukala

Software Engineer

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SUMMARY

Software Engineer with 2 years of experience building and deploying scalable full-stack applications using Django, React, and AWS. Skilled in designing robust RESTful APIs, integrating relational databases like PostgreSQL, and automating CI/CD pipelines. Experienced in delivering production-ready solutions with strong attention to backend architecture, code quality, and cloud-native deployment. Brings a solid foundation in full-stack and modern build/deploy automation to agile, high-performance teams.

EDUCATION

Master's in computer technology, Eastern Illinois University | Charleston, IL | GPA:3.70 **May 2025**
Relevant Courses: Web Technology & Multimedia, Computer Networking, Database Technology, Java in Technology, Cloud Computing, Database Security & Reliability, Research in Technology, Global Technology and Total Quality Systems.

SKILLS

Languages & Web: Python, JavaScript, SQL, HTML5, CSS3, React, Django, Java, C++.
Frameworks & APIs: Django REST Framework, RESTful APIs, Authentication (JWT), Role-Based Access Control (RBAC)
Databases: PostgreSQL
DevOps & Cloud: AWS (EC2, S3, RDS, IAM), Docker, Docker Compose, GitHub Actions
Testing & Tools: Postman, Git, GitHub
Development Practices: Object-Oriented Programming (OOP), CI/CD, Agile Methodologies, Version Control, Scripting (Python), Debugging & Troubleshooting.

PROFESSIONAL EXPERIENCE

Junior Software Engineer, Brillquest Technologies | Bangalore, India **May 2022 – Jul 2023**

- Expanded **Django REST API** with **batch updates** and **advanced filtering**, reducing API calls by ~40% and improving **data delivery** for dashboards used by internal teams.
- Designed and implemented **reusable React hooks** and **shared context logic**, improving **responsiveness** across modules used by admin users and **QA teams**.
- Deployed **production-ready full-stack applications** to **AWS Elastic Beanstalk** using **Docker**, achieving **99.9% uptime** and improving **reliability** for live users.
- Automated **CI/CD pipelines** using **GitHub Actions**, eliminating 90% of **manual deployment errors** and accelerating **feature rollouts**.
- Improved **unit and integration test coverage** to 70% using **pytest** and **React Testing Library**, preventing 3 high-priority **regressions** in staging.
- Mentored 3 engineering interns by **reviewing pull requests**, hosting **knowledge-sharing sessions**, and guiding them through **sprint workflows**.

Software Engineer Intern, Brillquest Technologies | Bangalore, India **Aug 2021 – Apr 2022**

- Built secure **authentication endpoints** (signup/login) using **Django REST Framework**, reducing validation errors by **15%** during QA cycles.
- Created **modular React form components** (inputs, modals), improving form submission success rates by **30%** in internal testing.
- Developed Python automation scripts and CLI tools using argparse to auto-generate mock test data, saving **~1 hour per QA cycle** and streamlining test coverage.
- Enhanced **Django view-level logging** for improved traceability, reducing bug triage time from **40 to 30 minutes** during staging.
- Configured **GitHub Actions** to automate test execution on pull requests, cutting **manual QA effort by 50%** and improving developer velocity.

PROJECTS

Real Time Image Segmentation Using Mask R-CNN **Jun 2021 – May 2022**

- Constructed an end-to-end segmentation pipeline in **Python** using **Mask R-CNN (COCO pretrained)**, processing **3,600 frames at ~11 FPS** with ~85% mask accuracy.
- **Streamlined** webcam and batch video segmentation with **OpenCV + Matplotlib**, reducing manual processing time by **~70%** and enabling batch visualization of **500+ images**.

Sign Language Detection Using Multi-Model CNN Architecture **Dec 2020 – May 2021**

- **Executed** an **ASL recognition system** using custom CNNs with a layered classifier (DRU, TKDI, SMN), achieving **~92% accuracy** and **15% improvement** in letter disambiguation.
- **Programmed** a video interface using **Tkinter + OpenCV**, enabling gesture recognition from webcam input at **~25 FPS** under varying lighting conditions.

CERTIFICATES

- **Meta Back-End Developer Professional Certificate** – Coursera / Meta Platforms Inc.
- **Google IT Automation with Python** – Coursera / Google.
- **Generative AI for Software Engineering** – Coursera/ DeepLearning.AI.
- **SQL (Intermediate)** – HackerRank.