KUNAL SHARMA

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EDUCATION

National Institute of Technology Warangal — 2017 to 2021
B. Tech in Electrical and Electronics Engineering

SKILLS

LANGUAGES/FRAMEWORKS: TypeScript, NodeJS, NestJS, JavaScript, Python, C++
DATABASES: PostgreSQL, MySQL, MongoDB
QUEUES: Kafka
DATA ENGINEERING: PySpark, Airflow
LOGGING: OpenSearch, Cloudwatch
CLOUD PLATFORMS: AWS, Azure
OTHER INTERESTS: Astronomy, Graphic Designing

PUBLICATIONS

HCH DEX: A Secure Cryptocurrency e-Wallet & Exchange System with Two-way Authentication — Oct. 2020
IEEE, 2020 Third International Conference on Smart Systems and Inventive Technology (ICSSIT)
DOI: 10.1109/ICSSIT48917.2020.9214122

Smart Boarding System with e-Passports for Secure and Independent Interoperability — Nov. 2021
Springer Nature Computer Science. 3, 52 (2022)
DOI: 10.1007/s42979-021-00938-5

ACTIVITIES

Assistive Technology Team, Innovation Garage (IG)
Working on technology solutions for **Visually Impaired(VI)**. Current Projects: Teaching geometry to VI kids, Navigation system for VI people.

Electrical Engineering Association, NIT Warangal
Served in **Event Conduction & Coordination** and **Design** teams.

E-Cell & E-Summit, NIT Warangal
Served in **Design** and **Event Conduction & Coordination** teams.

Technozion, NIT Warangal
Managed a techno-marketing event named **MAD MARKETING** at the annual technical fest of NIT Warangal. The event was the only management themed event in the whole fest. It witnessed a participation of **400+ students.**

VOLUNTEERING

• World Space Week, NIT Warangal (In association with WSWA and ISRO SDSC, SHAR)
Event Coordination and Public Relations. The event received a footfall of **15k in 2 days**. **~80%** of them were school children.

EXPERIENCE

MediBuddy — Apr. 2022 to Current — Bengaluru
Software Development Engineer 1
- Implemented key **wallet ledger** feature that **increased conversions by 12%.** (Angular)
- Implemented **kafka queues,** allowing operations to automated & streamline insurance claims process. (Kafka, TypeScript, NodeJS)
- Migrated MSSQL **stored procedures** to **pyspark** on EMR. (PySpark, Airflow, MSSQL)
- Automated doctor payout **MIS reports generation,** that helped finance save time and resources. (NodeJS, MySQL, Google API)
- Unified the end to end **financial transactions flow,** giving visibilty to business for an **entire BU** with **xxCr/month** revenue. (TypeScript, NestJS, MySQL, Athena, Redis)
- Single handedly designed & implemented a JSON based **custom request workflow rule engine** for reimbursement claims process to onboard multiple corporate flows. (TypeScript, NestJS, PostgreSQL)
- Designed & Implemented **fraud detection** logic to **flag counterfeit bill invoices** uploaded for reimbursement claims process based on dynamic rules. (TypeScript, NestJS, PostgreSQL)
- Extended **fraud detection** system to accept **feeback from adjudicator**, to increase accuracy of system, and create their own custom rules for each corporate flow. (TypeScript, NestJS, PostgreSQL)

ACT Fibernet — June 2021 to Apr. 2022 — Bengaluru
Management Trainee - Customer Anaytics
Technical Leadership Development Program (TLDP):
- Redesigned & Improved **CSAT score** capturing **platform** giving Marketing and Business leaders a visibility on customer satisfaction. (HTML, CSS, JS, PHP)
- Designed and Implemented a custom self hosted **Customer App Analytics tool** to capture metrics like **user journey, friction points, user engagement, average session length** helping them to better understand users. (Countly, MongoDB, Python, Parse)
- Integrated **JWT** based authentication, for the retailer portal used by field sales team. (TypeScript, NodeJS)

Aufenbach — Oct. 2019 to Mar. 2020 — Warangal
Internship
Real-time Body Tracking for VR Applications:
- Developed a system through which user's physical activities are tracked using sensors.
- Users can **walk** inside computer simulation **without any hand controls**.
- Worked on **design** of system, **data acquisition** from sensors and conversion to useful format.
- Was able to convert the work done here into **2 research papers** that were presented at various locations.

PROJECTS

Custom URL Shortener - smolink
- Shortens URL upto length **512 characters to 6 characters**
- Able to redirect links and keep **stats** on the number of visits
- Users can set their own **personalized URL**
- Has HTTP Basic Authentication to view stats

Django Blog Website
- Blog website made using Django and deployed on PythonAnywhere, sqlite3 is db
- Users can:- **Register new account, create, update, delete posts**
- Choose a **custom profile picture**, View posts by individual user
- Change account username, email, password
- Request password reset email

Celebrity Face Recognition
- Dataset used **250+ images** in **5 categories** mined using web scraping
- SVC, Random Forest, Logistic Regression, OpenCV, Python, Flask
- End to end project with Web UI where user can **drag and drop** the image to classify
- Successfully achieved an **accuracy of 82%**

Bengaluru Real Estate Price Prediction
- Dataset used consists of **13,000 records** with **8 independent features**.
- LinearRegression, DecisionTreeRegressor, Python, Flask
- End to end project with Web UI, user can input the features & get an estimate price
- Successfully achieved an **accuracy of 86%**

ACHIEVEMENTS

• Joint Entrance Examination (Advanced)
AIR: 7447 (GEN)

• Joint Entrance Examination (Main)
AIR: 6107 (GEN)
Top 0.5% of 1.3+ million students nationwide

• Science Olympiad Foundation
School Topper