

# 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](https://doi.org/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](https://doi.org/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 visibility 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 system** 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. (TypeScript, NestJS, PostgreSQL)
- Extended **fraud detection** system to accept **feedback 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 Analytics

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. (County, 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