

RAJ SUDHARSHAN VIDYALATHA NATARAJAN

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SUMMARY

An **AWS Certified Solutions Architect** with 4+ years of experience specializing in **backend** development and **cloud** technologies. Leveraging expertise in **Python** development and cloud solutions to contribute to dynamic software development projects focused on innovation and scalability. A **data-driven** professional with excellent communication skills, adept at developing high-impact solutions, optimizing system performance, and facilitating cross-functional team collaborations.

CERTIFICATIONS / ACHIEVEMENTS

- **[AWS Certified Solutions Architect – Associate](#)** (Amazon Web Services) July 2020 – July 2023
- Won 2nd place at **Google Developer Student Club Hackathon**.

SKILLS

Programming Languages: Python, Java, JavaScript, Dart, SQL, NoSQL, HTML, CSS

Frameworks/Libraries: Django, Flask, FastAPI, React, Flutter

Databases: PostgreSQL, AWS RDS, Aurora, Redshift, DynamoDB, MySQL, Firestore, MongoDB

Cloud & Tools: AWS, Firebase, Linux, JWT, REST APIs, CI/CD, Docker, Git, JIRA, Power BI

WORK EXPERIENCE

Programming Assistant & IT Support February 2022 - Present
Northeastern University (svhackersclub.com) ([Github](#)) San Jose, California

- Founded and led the Silicon Valley Hackers Club application, handling the **entire backend development** from concept to launch while coordinating effectively with the frontend team.
- Developed a dynamic **RESTful API** using **Django**, laying the groundwork for seamless integration with React and Flutter.
- Established a secure **JWT authentication** system, defining user and admin roles to safeguard sensitive information.
- Enhanced application scalability and cost efficiency leveraging **AWS** services like **EC2, S3, CloudFront** and **CodePipeline**.

Python Developer December 2020 - December 2021
E2 Infosystems Chennai, India

- Migrated healthcare app's back-end from PHP to **Django**, boosting system performance & stability for 10,000+ daily users.
- Revolutionized device allocation by devising an auto-assign mechanism with **Django ORM**, eliminating human errors and **slashing time** spent on manual device assignments by **80%**.
- Implemented **real-time device tracking** feature, offering users unparalleled visibility and insights into device statuses and locations, substantially enhancing the monitoring of mobile and alarm devices.
- Streamlined auditing processes by implementing a dynamic, **on-demand report** generation feature, facilitating rapid decision-making through instant access to comprehensive scheduled reports on devices and alerts.

Software Developer May 2019 - November 2020
Wipro Technologies Chennai, India

- Recognized with "**Go That Extra Mile Award**" for dedication to application stability and service level agreement adherence.
- Collaborated with global teams to address backend challenges, enhancing application reliability & maintaining a **99% uptime**.
- Expedited the resolution of job failures and system issues, enhancing the reliability and service availability of Mastercard's Automated Billing Unit.

EDUCATION

MS in Computer Software Engineering | Northeastern University | **GPA: 3.92** Expected December 2023
BE in Electrical and Electronics Engineering | SRM Valliammai Engineering College April 2019

PROJECT EXPERIENCE

[Hashtag Holidays Chatbot](#) August 2023

- Pioneered the development of an **AI-driven chatbot**, integrating analytical insights derived from users' **Instagram** data and **browsing history** to craft **personalized travel suggestions**, thereby elevating user engagement and satisfaction.
- Integrated **machine learning** and NLP techniques, including **zero-shot classification** and **FLAIR's NER**, enhancing the accuracy of travel recommendation.
- Designed a responsive **FastAPI** backend, synergizing with **DialogFlow** and deployed on **Telegram**, implementing a dynamic **decay-function scoring** model that leverages user interaction and **Google Maps** data for tailored travel recommendation.

[DineQ \(Square Devpost Hackathon\)](#) June 2023

- Revolutionized dining with DineQ app (**AWS, Django, Flutter, Postgres**), to enhance user exp and restaurant operations.
- Slashed wait times by **30%** by replacing physical queues with **virtual ones**, significantly boosting user satisfaction.
- Implemented seamless, **secure transactions** by integrating real-time restaurant data, streamlining order processing, payments, and inventory management using **Square API** and Unique-Order-ID.