ASHWIN SAI VAGU

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SKILLS:

Languages:	Python, Java, JavaScript, C++, Typescript
Database Technologies:	NoSQL, MySQL, PostgreSQL, SQL
Frameworks:	Flask, Angular, Vue Js, Jest.js, Flutter, React JS
Tools:	Figma, Chrome Debugger, Adobe XD, React Developer Tools
Cloud Technologies:	Google Cloud Platform, AWS
Soft Skills:	Communication, Problem-Solving, Adaptability, Teamwork, Leadership, Time Management
Other:	HTML/CSS, Knowledge in Web Security, MS office, Photoshop

TECHNICAL CERTIFICATIONS:

- Google Associate Cloud Engineer **2021**
- Oracle Certified Associate, Java SE 8 Programmer **2019**
- NPTEL Python Professional from IIT Madras **2019**
- NPTEL Soft Computing from IIT Bombay **2019**
- NPTEL Social Networks from IIT Madras **2019**
- SONET Certifications from KMIT: Web Security, Full Stack, Unity Courses **2019**

PROFESSIONAL EXPERIENCE:

Software Engineer - Factset Research Systems Inc., Hyderabad, India **2022 - 2023**

- Developed an application called "Internal Research Notes," which facilitated the sharing of financial market observations and forecasts.
- Transitioned the front end build tool used in this product from webpack 4 to Vite, which resulted in an 86% reduction of build time – a shift from around 15 minutes to a mere 2 minutes.
- Implemented a streamlined functionality that facilitated linking specific contacts to financial records, leading to an 8% increase in record submissions.
- Worked on optimizing the API of a specific component, resulting in a 5% enhancement of the overall performance.
- Created key full-stack components for the application using Vue.js, Vuex.js, dotnet, and C#, integrating PostgreSQL and AWS for data management and employing Swagger for API testing.
- Oversaw streamlined database management and application enhancements, ensuring robust alignment with user needs.

Associate Data Engineer - SpringML Inc., Hyderabad, India **2021 - 2022**

- Developed healthcare applications addressing COVID-19 vaccination for Florida's state health department and an academic platform for the University of Minnesota, Rochester.
- Implemented an automated rewarding system on the aforementioned University of Minnesota platform using cloud functions in GCP. This implementation led to a reduction of rewarding errors by at least 10%.
- As part of the same project, Google's Identity Provider was integrated to enable single sign-on functionality, incorporating a SAML-based user authentication.
- The COVID-19 vaccine registration application for Florida facilitated vaccinations for a minimum of 70,000 citizens.
- Orchestrated user job handling with Python on Google Cloud Platform and engineered an efficient CI/CD pipeline with App Engine and Cloud Build, optimizing development workflows.
- Leveraged Angular 11, HTML/CSS, Flask, and Python for the development of both projects, complemented by Figma for user interface prototyping. NoSQL and PostgreSQL were used for data handling in these projects.

Software Development Intern - Virtusa Corporation, Hyderabad, India **2019 - 2020**

- Built a healthcare application named "Dakshas Digital," aimed at effectively managing hospital activities. The implementation of this application led to the seamless optimization of day-to-day hospital operations, culminating in an average increase of 25% in the number of daily doctor appointments.
- Developed a mobile application for the existing 'V-hub' company portal, tailored for in-house IT resource utilization. This development significantly enhanced user interaction, leading to a near doubling of the portal's activity.
- Contributed in the full-stack web development, user interface design and maintenance of these applications.
- Worked with React JS, HTML/CSS, Redux, Bootstrap, Python, Node.js, Express.js, Flutter, and Dart. Authentication and data storage were managed through GCP Firebase integration in these projects.

PROJECTS:

Chatbot for Hospital Website (Retrieval-Augmented Generation(RAG), OCR text reading)

- Integrated RAG to allow the chatbot to retrieve and generate accurate medical information of a hospital from large sets of pdfs, providing users with contextually relevant responses.
- Engineered Optical Character Recognition (OCR) using Tesseract to extract and process text from scanned medical forms and reports, streamlining document processing workflows which the RAG could use.
- Utilized AWS Bedrock to host and manage the Large Language Model (LLM) chatbot, enabling real-time, scalable user interactions and enhancing overall user experience.

Student Performance Predictor (Artificial Neural Networks(ANN), Snowflake Data Warehouse)

- Constructed an Artificial Neural Network (ANN) model to forecast student academic performance based on historical data, delivering more accurate and actionable predictions.
- Utilized Snowflake Data Warehouse to store input data (student details and grades) and save output predictions, ensuring scalable and efficient data handling. Initial student data was stored in an AWS S3 bucket and then ingested into Snowflake Data Warehouse.

EDUCATION:

Master's of Science in Computer Science, **2023 - 2025**
Purdue University, Fort Wayne Campus
(Relevant Coursework: Software Engineering, Database Design, Data Structures, Web Development)

Bachelor's of Technology in Computer Science and Engineering, **2016 - 2020**
Keshav Memorial Institute of Technology - affiliated to Jawaharlal Nehru Technological University, Hyderabad
(Relevant Coursework: Operating Systems, Object-Oriented Programming, Computer Networks, Machine Learning)