

# SUBRAMANYA GANESH

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## SUMMARY

Tech enthusiast with a Masters in Computer Science and close to 4 years of work experience, with a proven track record of innovation. Highlights include winning the best fintech startup award at OraHacks, developing a chatbot for Illinois Institute of Technology utilizing retrieval augmented generation (RAG), receiving awards at ServiceNow, and a strong background in advanced automation tools. I aim to bring my skills and experience to help organizations in developing efficient and reliable backend applications.

## EDUCATION

**Masters of Science in Computer Science- (GPA - 3.8)** May 2024  
Illinois Institute of Technology, Chicago, IL

**Bachelors of Technology in Electronics & Communication - (GPA - 4.0)** May 2019  
Visvesvaraya Technological University, India

## WORK EXPERIENCE

**Graduate Teaching Assistant - Illinois Institute of Technology, Chicago, IL** Sep 2023 - May 2024

**Software Engineer - ServiceNow, Bengaluru, India** July 2019 - Aug 2022

- Unified AWS, Azure, OCI, Google Cloud within ServiceNow, streamlining **over 200** services for efficient operations and implemented CI/CD pipelines to continuously monitor and resolve defects to enhance system reliability.
- Optimized performance, reducing **Discovery** process time by **40%** while enhancing CMDB data population.
- Analyzed AWS and Azure resource usage and billing data, cutting annual costs by **approximately 18%**.
- Mentored and trained **5 junior employees**, using interpersonal skills to help them adapt and meet business demands.
- Led task breakdowns and code review in AGILE SCRUM, boosting team **productivity by 15%**.
- Developed in-house libraries for efficient REST API operations on ServiceNow and cloud endpoints, functioning as an internal **Postman** app using **UniRest** and **Apache HttpClient**, and supporting both JSON and XML data.
- Leveraged AWS, Azure, and OCI SDKs to perform CRUD operations on **over 10 managed services**, including virtual machines, databases, and network. Configured both **pull and push-based event mechanisms**, integrating them with ServiceNow instances to ensure seamless real-time data synchronization across cloud platforms.
- Using the concepts of software development life cycle(SDLC) developed a robust framework that can securely SSH through a JumpBox into Oracle Middleware servers which was a Unix/Linux server and extract critical business data.

**Software Intern - ServiceNow, Bengaluru, India** Feb 2019 - July 2019

- Developed an end-to-end full-stack application to monitor **over 50 Mid-Servers linked to instances**, utilizing a robust NoSQL database and presenting their statuses in an intuitive and user-friendly front-end user interface.
- Engineered an automation system utilizing **design patterns and optimized data structures** to validate attributes and relations, tags and events across AWS, Azure, and OCI cloud platforms, achieving **98% accuracy** in detecting defects.

## SKILLS

- **Programming** - Java, Python, C, JavaScript || **Database** - SQL, MongoDB, PostgreSQL, Firebase, ElasticSearch.
- **Frameworks** - Spring Boot, ReactJs, Node.js, Express, Tailwind, Maven, Gradle, Django || **Shell Scripting** - Bash, zsh
- **Cloud Infrastructure** - AWS, Azure, OCI, GCP || **DevOps Tools** - Jenkins, Docker, Git, Postman, Prometheus, Kafka.

## PROJECTS

**HawkBot - Python, Django, ChromaDB** [GitHub](#)

- Engineered an AI chatbot for Illinois Institute of Technology, utilizing advanced Retrieval-Augmented Generation (RAG) technology which is deployed to effectively address questions related to the Illinois Tech Courcera program and currently has around 30 users/day .
- Developed a highly accurate question-answering system in collaboration with the CIO's office at Illinois Tech, leveraging Vector databases, Embeddings, and Similarity Search Techniques to enhance the student experience.

**Mid-Server Creator - Java, Spring Boot, Maven, PostgreSQL, Hibernate** [GitHub](#)

- Developed a versatile tool for deploying mid servers on specified ServiceNow Instances, supporting environments such as AWS and servers running macOS and Linux with reachable IP addresses. This tool significantly reduced the time required by team members to create mid servers, thereby enhancing overall efficiency and scalability.

**Stock Market Analyzer - Java, Spring Boot, Maven, Docker, Python, ElasticSearch, Kafka, Zookeeper** [GitHub](#)

- Developed a microservices based system utilizing a Dockerized Kafka-based data streaming solution to analyze and visualize stock prices of Google and Netflix. Added unit test and integration tests to ensure application reliability.

**Online Grocery Store - ReactJs, Express, MySQL, MongoDB, Python** [GitHub](#)

- Developed a Full Stack application featuring Geospatial Location, Product Recommender, Product Reviews, and User Profiling functionalities for an enhanced and personalized user experience.