Sanyam Shilpakar

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EDUCATION

University of Massachusetts Amherst | GPA: 3.86 | **09/2018 - 05/2022**
B.S. Informatics (Data Science) & B.S. Biology
• Member of the BioSci Club; Dean's List
• **Relevant Coursework**: Data Structures, Web Programming, Human-Computer Interaction, Intro to Data Science, Genomics & Data Science, Python for Genomic Data, Algorithms for DNA Sequencing, Practice and Application of Data Management, Mobile Health Sensing, Statistics Modeling/Health Data Science, Evolutionary Genomics and Bioinformatics

EXPERIENCE

CSX Transportation | Software Engineer | 01/2023 - Present
• Enhance backend functionality for enterprise-grade *Java* and *.NET* systems, reducing ticket resolution time by 25%.
• Support frontend in Java apps using *JSP*, ensuring seamless frontend integration and UI performance.
• Resolve fast-paced database incidents and optimize *SQL* performance through query tuning and schema improvements.
• Collaborate with cross-functional teams to manage query depths and monitor server node endpoints for legacy app stability.
• Supported Positive Train Control (PTC) application that consumed real-time rail sensor data from *Apache Kafka*, ensuring reliable monitoring and secure communication; used *Datadog* to track application performance.
• Monitor application servers and manage deployments with *IBM WebSphere*, and automate builds with *Apache Maven*.
• Utilize *SLF4J* and *Log4j* to troubleshoot by analyzing integrated application logs.
• Automate build, test, and deployment pipelines with *Jenkins* and *Kubernetes* , ensuring continuous integration and deployment for Java applications.
• Manage version control with GitHub, using version snapshots and *GitOps* for safe deployments and infrastructure automation.

Tata Consultancy Services | Software Engineer | 09/2022 - 12/2022
• Engineered a full-stack banking portal using *Node.js*, *Express*, and *Angular*, integrating *JWT*-based authentication and *RESTful API* architecture.
• Built middleware with *Angular HTTPClient* to handle API requests and responses.
• Completed intensive onboarding on *Java*, *MongoDB*, *Angular*, and *Node.js*.

Hazen Lab | University of Massachusetts Amherst | Lab Assistant | 09/2020 - 05/2022
• Manipulated, merged, overlapped and performed data wrangling on big plant genomic data using *dplyr*, *tidyr* and *DT* packages in R
• Built an interactive *Shiny app* dashboard using *ggplot2* to visualize and analyze large-scale plant genomic datasets.
• Used *Bioconductor* to perform statistical and graphical analysis of high-throughput plant genomic data
• Sequenced and Visualized genetics variation between different species of plants using *DESeq* and heatmaps.

SELECTED PROJECTS

Weatherly: Weather based playlist generator | Fall 2020
• Designed and implemented a weather-based music recommendation engine using *Node.js* and Spotify API, enabling dynamic playlists
• Built a SQL-backed *Node.js* API to serve weather-based song recommendations, consumed by a dynamic frontend with *HTML*, *CSS*, and *JavaScript*.
• Utilizing external API calls from Weather API and Spotify API allows the user to have a user-friendly UI and dynamically updates top 100 songs from Spotify based on the weather

Flock Walk: Safe way to walk | Fall 2021
• Led feature development using *Dart* and *Flutter* for a cross-platform safety navigation app.
• Prototyped user workflows with *Figma* and collaborated on requirement specs, designing, implementing, and testing.

SKILLS

Languages: Java, Python, JavaScript, R, HTML/CSS, .NET
Frameworks/Libraries: Node.js, Angular, Express, Flutter, JUnit
DevOps/Tools: Git, Jenkins, Datadog, Apache Kafka, Apache Maven, IBM WebSphere, GitOps, Kubernetes, Agile
Databases: MySQL, MongoDB, Oracle, PostgreSQL
Cloud: AWS (EC2, S3, Lambda, SQS, SNS, ECS, EKS, ELB, VPC) – completed AWS Skill Builder courses and applied services in personal labs and training environments
Testing/APIs: Postman, REST, JWT, A\B Testing, SLF4J, Log4j