

Dinesh Balakrishnan

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EXPERIENCE

Software Engineer Intern

Garmin

May 2024 - July 2024, Olathe, KS

- Contributed to a REST-API that facilitates voice, SMS, and email messaging from phone to aircraft via satellite.
- Collaborated on extensive Java Spring Boot codebases, conducting in-depth code reviews to ensure quality and functionality.
- Developed numerous REST API endpoints, comprehensive unit and integration testing strategies, and CI/CD pipelines.
- Enhanced satellite communication reliability by optimizing message encoding and decoding processes using advanced algorithm design.

Software Engineer Intern

Telephone and Data Systems

February 2023 - February 2024, Remote

- Maintained a range of large-scale Java and Python applications while communicating with other teams to handle ambiguous or undefined problems.
- Drafted comprehensive technical and team documentation for software projects, enhancing team collaboration and seamless project continuity.
- Produced automated CI/CD pipelines for Java and Python applications and libraries using Jenkins and Ansible.
- Developed complex SQL scripts as part of Root Cause analysis for issues impacting millions of customers and presented solutions
- Utilized the Kanban method for Agile software development and used JIRA for project management.
- Developed an LDAP pooled authentication proxy to authenticate all POP3/IMAP email clients for email authentication; Learned to implement efficient threading and perform distributed load testing to handle over 4 millions requests per second.

Student Coordinator

Texas A&M Division of Information Technology

October 2021 - September 2023, College Station, TX

- Supervised IT call center operations, guided technicians and assessed software outages, liaising with other IT departments and IT mission control to restore vital front-end and back-end university services promptly.
- Built a modern, Web Scraping, Node.js driven, dashboard and desktop client, providing critical metrics for call center efficiency and agent call queue data to both technicians and senior management.
- (Student Technician - Oct 2021 to Jan 2023) Aided campus members with diverse IT challenges, from account troubleshooting to software/network outage resolution through multiple channels: phone, chat, email, walk-ins, and ticketing systems (ServiceNow).

PROJECTS (SHOWCASE: DINESH.TOCOMS.COM)

Organization Tracker (Customer Project)

CSCE-431 • github.com/BACKED-Software/mabs • January 2024 - May 2024

- Led 4 developers and coordinated the implementation of feature enhancements in weekly sprints, improving user experiences based on member feedback and deploying regularly through CI/CD pipelines.
- Facilitated stakeholder engagement through regular meetings to capture requirements, discuss project limitations, and incorporate extensive feedback using project management tools.
- Standardized and enforced coding practices across the team, leveraging code review processes and automated quality checks to maintain integrity.

Sharetea Java desktop client & NodeJS web point of sales solution

CSCE-331 • github.com/csce-315-331-2023c/project-3-csce331-970_07c-sharetea • August 2023 - December 2023

- Mentored 4 team members in TypeScript, producing a maintainable, well-documented point of sales system recognized for its usability and design.
- Built a JavaFX Cashier interface interacting with a AWS PostgreSQL DB using Agile Waterfall method.
- Led development of a cloud-deployed customer interface using NextJS (TypeScript) and HTML with Agile Scrum.
- Coordinated team efforts using JIRA, ensuring project alignment and timely completion within deadlines.

Total Control Demo Suite (MailTC and BudgetTC)

github.com/DineshBa25/BudgetTC-JS/ • April 2021 - Present

- Engineered a budgeting web app using ReactJS and Realtime DB integration, enabling creation, tracking, and import of expenses.
- Utilized Java Swing to implement a feature-rich budgeting tool allowing real-time import and expense tracking, as well as 401k financial forecasting.
- Developing a cutting-edge NextJS cloud-based IMAP email client with a custom machine learning model, custom authentication and intricate email management for improved user access and interaction.

EDUCATION

Bachelor of Science in Computer Science

Minor in Statistics • Texas A&M University • College Station, TX • 2025 • 3.93

• University Honors and Engineering Honors, IAP Scholarship Recipient

SKILLS

Java, Python, JavaScript, TypeScript, Ruby on Rails, C++, HTML, CSS, Firebase, Docker, React.js, Next.js, Flask, Spring Boot, Jenkins

Note: To view more projects and see the project image showcases for each project, please visit <https://dinesh.tocoms.com>