# JUSTINE GEORGE

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## EXPERIENCE

**Resi Media, Allen, TX: Software Engineer Intern – Backend**                                      May 2023 – Aug 2023
- **Architected and developed scalable REST APIs** with **Spring Boot**, enhancing global access for **over 5,000 churches** to the Resi Content Library's metadata
- **Engineered a GCP-based alert system** through **Terraform automation**, integrating Slack notifications for video upload time anomalies, which significantly heightened system reactivity
- **Led a technical research initiative** on **MP4-to-M4A audio extraction using FFmpeg**, delivering a comprehensive report that shaped the media team's strategy for implementing an audio-only download feature
- Tech Stack: **Java**, **TypeScript**, **Cassandra**, **Redis**, **Docker**, **GCP**, **TestNG**

**Oracle Financial Services Software, Karnataka, India: Software Developer – Full Stack**                  Aug 2019 – Jul 2022
- **Developed 20+ REST API endpoints** using **Spring Boot**, **Java**, **JUnit**, and **Oracle SQL** for Oracle's core banking platform, impacting **900+ global banks**
- **Engineered a Python tool** for **automating SQL entry generation**, streamlining database updates for the Interest and Charges module, widely adopted by core and cross-functional teams
- **Overhauled app architecture by phasing out 50 redundant wrapper components**, yielding a **40% reduction in Docker image size** and boosting deployment efficiency
- **Collaborated on API and database architecture**, leading **technical presentations** and advancing team coding practices
- **Created 30+ responsive UI components** with the Oracle JavaScript Extension Toolkit, achieving a **60% increase in page load efficiency** over the legacy system
- Tech Stack: **Java**, **JUnit**, **Swagger**, **Oracle SQL**, **Docker**, **JavaScript (Oracle JET)**, **HTML**/**CSS**

## PROJECTS

**TabKeeper (Featured Chrome Extension)**  TypeScript, React, Redux, Cloud Firestore, Emotion CSS, Vitest          Jul 2023
- **Expanded international user base** by integrating **i18n support**, translating the extension into **10 languages**, which contributed to a **67% surge in user adoption** and reached **over 400 monthly active users**
- **Implemented tab data synchronization across devices** with **Firebase SDK** and **Cloud Firestore**, utilizing a shared UUID token for secure, seamless user access across the **Chrome ecosystem**
- **Engineered an undo/redo functionality** using **Redux** and a custom dual-stack approach, enhancing user experience by enabling precise control over tab management (GitHub Repo)

**BookFellow – Social Media for Bibliophiles**  Java, PostgreSQL, Docker, AWS EC2, Prometheus, Grafana, JUnit          Aug 2023
- **Implemented JWT authentication** and **role-based access control** with **OAuth2** within a **PostgreSQL** environment, securing user activities and privacy for the BookFellow app, ensuring safe user interactions
- **Engineered PostgreSQL SQL transactions** to log and update user activities such as reviews and comments in real-time, enhancing the **social timeline's interactivity** and **user engagement**
- **Established Prometheus monitoring** for HTTP-exposed service metrics and **Grafana dashboards** for data visualization, enhancing the **observability** of the BookFellow app on **AWS EC2** (GitHub Repo)

**Planet - Event Planner App**  Next.js, React, MongoDB, Redux, Passport.js, Docker, Jest          Dec 2023
- **Implemented robust user authentication and role-based access control** with **Passport.js**, ensuring secure and efficient management of user sessions and access privileges
- **Enhanced backend performance** by implementing **indexing** and **query optimization in MongoDB**, leading to streamlined event operations and more efficient user data management (GitHub Repo)

## EDUCATION

**M.S. Computer Science**                                                                         Expected May 2024
The University of Texas at Dallas, Richardson, TX                                                   3.74/4.00 GPA
Coursework: Algorithms, Database Design, Operating Systems, Big Data, Data and Information Security, Machine Learning

**B.Tech. Electronics & Communication Engineering**                                               Jul 2015 – May 2019
National Institute of Technology Calicut, Kerala, India

## TECHNICAL SKILLS

**Languages:** Java, Python, TypeScript, JavaScript, SQL, C/C++, Bash
**Backend:** Spring Framework, Apache Kafka, Node.js, Express, Flask, JUnit, OAuth2
**Databases:** PostgreSQL, MongoDB, Oracle SQL, MySQL, Cassandra, Redis
**DevOps:** Docker, GitHub Actions, Jenkins, Prometheus, Grafana, Terraform
**Cloud Platforms:** Google Cloud Platform (GCP), Amazon Web Services (AWS)
**Frontend:** Next.js, Astro, React, Redux, Emotion CSS, Tailwind CSS, Jest