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# TANMAY BAGARIA

Website: [tanmay.js.org](http://tanmay.js.org)

## WORK EXPERIENCE

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<b>Software Engineer</b>	<b>Oracle America, Inc</b>	<b>Aug 2020 – Present</b>
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Products: *TimesTen, Zero-latency Cache (Cloud), E-RDBMS and E-Kafka*

- Developed a Kafka-like events and stream processing platform using a distributed database as the backend delivering API compatibility, higher throughput, transaction failover resilience, and integrated analytical support. Key contributor to the core development team, leading initiatives to build the client architecture, configuration management, performance benchmarking and customer-facing demonstrations.
- Enhanced and developed various components within the engine of the distributed database, focusing on the storage modules, to improve data compaction and defragmentation and optimize query performance.
- Designed and created RESTful APIs to facilitate key product operations within the cloud environment, contributing to both the control plane and data plane.
- Responsible for building the diagnostic and logging service of the product leading to 30% decrease in resolution time and increased system reliability.
- Optimized, refactored, and tested features of the TimesTen in-memory database including cache groups and transaction log APIs.
- Identified and resolved over 40 regressions in standalone and multi-host instances, addressing cache and replication issues.
- Redesigned and improved the server-side infrastructure to accommodate more users leading to better scalability.

<b>Tech Mentor</b>	<b>MentorCruise</b>	<b>Sep 2020 – May 2021</b>
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- Mentored and coached 5 professionals to learn, code and deploy their own web applications.
- Tutored individuals in frontend and backend technologies, focused on TypeScript, React and Node.

<b>Software Engineer, Intern</b>	<b>Fetch Rewards, Inc</b>	<b>Jan 2020 – May 2020</b>
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- Responsible for the development of a React and Redux-powered internal dashboard which was tailored for the CPG sector.
- Worked on internal scripts using Node, S3 and AWS Batch to provide user metrics and growth analysis.
- Fixed multiple bugs in the mobile application using Java and Spring enhancing user experience.

<b>Undergraduate Teaching Assistant</b>	<b>UW - Madison</b>	<b>Jan 2019 – May 2020</b>
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- Courses: Introduction to Artificial Intelligence (x3), Systems Programming (x2), Algorithms.
- Held office hours, review sessions and developed practice problems to help students in their coursework.

<b>Undergraduate Researcher</b>	<b>UW – Department of Biochemistry</b>	<b>Jan 2019 – May 2019</b>
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- Developed C++ clustering algorithms for the interaction of high dimensional proteins using the MSL library.

## EDUCATION

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<b>Madison, WI</b>	<b>University of Wisconsin-Madison</b>	<b>May 2020</b>
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- **Major:** Bachelor of Science in Computer Science
- **GPA:** 3.9 /4.0 | Dean's List | Graduated with Distinction
- **Relevant Coursework:** Algorithms; Data Structures; Data Science; Artificial Intelligence; Operating Systems; Information Security; User Interfaces; Java Programming; Computer Architecture; Compilers;

## SELECT PROJECTS

- **Chores Rewards** (2023). Spearheaded the iterative development of a mobile app which incentivizes users with rewards based on daily chores.
- **Tea Accounts** (2022). Built an enterprise software to streamline and manage a labor-intensive tea industry.
- **Farm Excess** (2019). Developed a web-based application which reduces farm waste and promotes local marketing.
- **Chain-Voting** (2018). Created a decentralized blockchain voting system with user authentication for simultaneous usage using Python TCP server sockets, firebase, and multi-threading.

## SKILLS

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- Java; Python; C; C++; Javascript; Typescript; Node; React; Redux; Express; Perl; Linux; Go; SQL; AWS; Docker; Kafka; Flink; Spark; Kinesis; Kubernetes; Terraform; Microservices; Distributed Systems;