

Ambarish Kshirsagar

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EDUCATION

University of Southern California Master of Science in Computer Science GPA: 4.00/4.00 Relevant Coursework: Algorithms, Database Systems, Web Technologies, Deep Learning	Los Angeles, CA Sep 2024 - May 2026
Savitribai Phule Pune University Bachelor of Technology in Computer Engineering GPA: 4.00/4.00 Relevant Coursework: Operating Systems, Artificial Intelligence, Compilers, Networks	Pune, India Aug 2020 - May 2024

SKILLS & RESEARCH INTERESTS

Languages	: Java, Javascript, Typescript, SQL, HTML, C++,Python
Frameworks	: React, Node, Express, Angular, TailwindCSS, Spring, Next.js, Flask, PyTorch, OpenCV, TensorFlow
Databases	: MySQL, PostgreSQL, DynamoDB, MongoDB, Redis, Firebase
Cloud & DevOps	: GCP, AWS Lambda, Jenkins, Docker, Kubernetes, Terraform.
Other Tools	: Git, GitHub, Jira, Confluence, BitBucket.

EXPERIENCE

Software Engineer Intern Loop Health Javascript, Node.js, React.js, Typescript, GCP, AWS, PostgreSQL, Firebase, REST API, Python.	Jul 2023 - Jun 2024 Pune, India
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- Executed a **large-scale data migration** of **1M+ users** from **Firebase** to **PostgreSQL**, ensuring **data integrity** and minimal downtime. Introduced **Prisma ORM** and **dependency injection**, leading to 35% improvement in User Registration speed.
- Developed frontend features using **React.js** and **Next.js**, integrating them with REST APIs for seamless data flow. Contributed to the in-house component library and **integrated Mixpanel with the frontend** for user behavior tracking and data analysis.
- Led design and development of a Notification System for the HR Dashboard serving 1000+ client companies, building **REST APIs in Typescript** to **integrate SendGrid APIs** for email notifications. Leveraged **GCP Cloud Scheduler** for real-time dispatching, resulting in 60+ hours saved per quarter for Customer Success Managers.
- Migrated company secrets to **GCP Secrets Manager**, implementing integration via SDK and developing **CRON jobs in a Node.js backend (TypeScript)** for automated secret rotation. **Authored a comprehensive security handbook**.
- Performed **Root Cause Analysis (RCA)** for 50+ production-level bugs and high-severity issues, conducted **performance testing using Artillery**, identifying and optimizing bottlenecks in API response times. **Integrated Freshdesk API for automated ticket creation**, streamlining incident reporting and resolution workflows

Student Software Developer University of Southern California Python, Flask, MongoDB, React.js, HTML, CSS, Next.js, SSO, Node.	Dec 2024 - Present Los Angeles, CA
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- Working on integrating **USC SSO authorizations** and transitioning away from OAuth in **Python-based Flask backend**.
- Working on transition from **cloud servers (AWS)** to in-house hosted servers for USC's security compliance requirements.
- Developed a more user-friendly UI in **React JS** for the application making the UI user friendly, resulting in a smoother experience.

PROJECTS

Adventure Trails <i>JavaScript, TailwindCSS, MongoDB, Express, Node, Python, TensorFlow</i> [link]	Apr 2023 - Jun 2023
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- Designed and developed *Adventure Trails*, a full-stack web application where users can add & review scenic viewpoints.
- Built the frontend using **JavaScript** and **Bootstrap**, styled it with **TailwindCSS** for a responsive and intuitive UI.Developed a **RESTful API** with **Express.js** and **Node.js**, utilizing **MongoDB** for scalable data storage and retrieval.
- Constructed a **bi-directional LSTM-based Deep Learning model** in **Python with TensorFlow** to detect toxic reviews and seamlessly integrated it into the platform. Implemented **user authentication with OAuth2** and **JWT-based authorization**

Mumble <i>React.js, WebSockets, Docker, Agora RTC SDK, Agora RTM SDK, Node, JavaScript</i> [link]	Jan 2023 - Mar 2023
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- Developed a real-time video conferencing and chat application leveraging **Agora RTC & RTM SDKs**, providing seamless **live video, audio, and text messaging** for users.
- **Implemented a scalable architecture using Node.js and React.js**, integrating **WebSockets for instant communication** and real-time updates, ensuring a **low-latency user experience**.
- **Containerized the application using Docker**, enabling **efficient deployment and scalability**, ensuring smooth operation across different environments.

NexaBrand <i>Python, Flask, AWS Lambda, Next.js,Tailwind CSS, OpenAI API</i> [link]	Mar 2024 - Jul 2024
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- Developed a full-stack AI-powered SaaS application using **Flask, Next.js, and AWS Lambda**, enabling automated branding snippet and keyword generation.
- Implemented a scalable, serverless architecture with **AWS (Lambda, API Gateway, CDK)**, optimizing performance and reducing infrastructure costs.
- **Built an intuitive, responsive frontend with React, Next.js, and TailwindCSS**, enhancing user experience and ensuring seamless AI-driven branding assistance.