

# HRUSHIKESH VAIDYA

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## EDUCATION

**University of Southern California**  
Master of Science, Computer Engineering

August 2024 - May 2026  
GPA: 3.93

## EXPERIENCE

**Tugoz LLC**  
Software Engineering Intern

June 2025 - August 2025  
Los Angeles, CA

- Designed state architecture, data model, and client-side caching policy for an event management Flutter application, reducing server load by 15
- Wrote Dart code to interact with API endpoints for user authentication, ticket validation, and other CRUD views
- Translated existing JavaScript-based request signing, authentication, and encryption logic to Dart for use in Flutter apps
- Built tests suites for all supported platforms, conducted physical and simulated tests, achieving over 90% code coverage

**Wide Wings Media**  
Fullstack Developer

July 2023 - July 2024  
Pune, India

- Redesigned existing backend LAMP stack for [ticketkhidakee.com](https://ticketkhidakee.com), replacing it with a Django-Postgres stack, leading to a ~45% increase in traffic and ~30% increase in user retention over 6 months
- Designed a robust cloud architecture on AWS, maintaining P95 latency below 100ms with ~10,000 concurrent users.
- Configured global CDN on AWS CloudFront and designed a caching policy successfully handling ~500,000 daily users

**Mastercard**  
Software Development Intern

May 2023 - July 2023  
Pune, India

- Wrote a serialization protocol to translate between protocol buffer and AVRO-based schemas for event-driven applications
- Facilitated communication between heterogenous serialization formats, reducing data transformation delay by ~15%
- Wrote a proof-of-concept Spring application for implemented protocol, hosted on internal Mastercard repository

## RESEARCH EXPERIENCE

**Adaptive Computing Experiences Lab**  
Research Assistant

October 2024 - May 2025  
University of Southern California

- Developed [SciSO](#), an end-to-end pipeline for extracting scientific citation graphs from StackOverflow data, studying dissemination of theoretical research and impact of scientific citations on modern trends in software development
- Authored “SciSO: Mining Science in StackOverflow”, submitted to the Mining Software Repositories ’25 Conference
- Designed and developed TSAR (Tracing Sustainability in ARchitectures), a tool for analyzing sustainable software architectures

## PROJECTS

**Django Core Contributor**

- Contributed over [15 accepted pull requests](#) adding patches, bug-fixes, and new feature additions to Django’s core codebase
- Submitted three [Google Summer of Code](#) proposals (2022, 2023, 2025) for core-level improvements including rate-limiting, CORS/CSP support, and admin interface tooling

**Microsoft Office Math Markup Language Parser**

- Wrote a Python library to extract mathematical equations, text, and images from Microsoft Word (.docx) files, including a conversion API for converting extracted equations into LaTeX
- Hosted on [PYPI](#) under the name [docxlatex](#), reaching [~1000 downloads](#) a month

**WYSIWYG Mathematical Equation Generation**

- Created an open source WYSIWYG equation editor for the web with a GUI similar to Google Docs or Microsoft Word
- Wrote an API for conversion of created equation into LaTeX for convenient storage and/or rendering

## SKILLS

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|----------------------|--|
| <b>Tools:</b>        | AWS, Google Cloud Platform, Docker, Git, Kubernetes, CI/CD                         |
| <b>Technologies:</b> | Django, Spring, Node.js, Flutter, React, React Native, MongoDB, PostgreSQL         |
| <b>Languages:</b>    | Python, C/C++, JavaScript, Java, Dart  |
| <b>Coursework:</b>   | Algorithms, Computer Networks, Network Security, Cloud Computing, Image Processing |