HRUSHIKESH VAIDYA

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EDUCATION

University of Southern California August 2024 - May 2026
Master of Science, Computer Engineering *GPA: 3.93*

EXPERIENCE

Tugoz LLC June 2025 - August 2025
Software Engineering Intern *Los Angeles, CA*

- Designed RESTful API endpoints to support user authentication, real-time push notifications, and event data retrieval
- Developed software architecture for an event-management Flutter app, including corresponding backend architecture, supporting dynamic event maps, event scheduling, user management, and real-time notifications
- Collaborated with backend teams and stakeholders to define data models, API contracts, and integration strategies
- Built tests suites for all supported platforms, conducted physical and simulated tests, achieving over 90% code coverage
- Deployed the event-management application on Google Play Store and Apple App Store

Wide Wings Media July 2023 - July 2024
Fullstack Developer *Pune, India*

- Redesigned existing backend LAMP stack for 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 May 2023 - July 2023
Software Development Intern *Pune, India*

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

CO-CURRICULAR

Adaptive Computing Experiences Lab October 2024 - May 2025
Research Assistant *University of Southern California*

- Developed SciSO, an end-to-end pipeline for extracting scientific citation graphs from StackOverflow data, studying the dissemination of theoretical research and the 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 a GSoC 2022 proposal for adding rate-limiting to Django core, a GSoC 2023 proposal to include CORS and CSP support in Django core, and a GSoC 2025 proposal to integrate a command palette into Django admin

Microsoft Office Math Markup Language Parser

- Wrote a Python library to extract mathematical equations, text, and images from .docx files, including a conversion API for converting extracted equations into LaTeX
- Hosted on PYPI under the name docxlatex, with ~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

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