Shaunak Pedgaonkar

iamshaunak.vercel.app
Dublin, Ireland | +353 0894948113 | shaunak.pedgaonkar@gmail.com
linkedin.com/in/shaunakpedgaonkar | github.com/Shaunakpedgaonkar

SUMMARY

Computer Science postgraduate with strong foundations in object-oriented programming, algorithms, and system design. Experienced in building scalable web platforms, cloud-native APIs, and information retrieval systems using Python, Java, and JavaScript. Adept at debugging, testing, and optimizing large-scale applications with attention to detail. Thrive in collaborative, fast-paced environments with a strong focus on impact, learning, and clean, maintainable code.

TECHNICAL SKILLS

Languages: JavaScript (TypeScript), Python, Java, C++, SQL, HTML/CSS
Frameworks: React, Flask, Django, Node.js
Cloud/Tools: AWS (EC2, S3, RDS, IAM, Route 53), Docker, GitHub Actions, JMeter
Frontend/Creative: React, Tailwind, Storybook, WebGL, Three.js, GSAP, AOS, Blender
Concepts: REST/GraphQL APIs, OOP, CI/CD, E2E Testing, System Design, Async I/O, Accessibility, Localization, Agile

EXPERIENCE

Software Intern — AMS BuildTech Pvt Ltd *May–Aug 2021*

- Built dynamic estimation tools using Excel + Python, reducing project scheduling time by **15%**.
- Delivered interactive dashboards to track construction KPIs, improving reporting efficiency by **20%**.
- Automated resource allocation across projects using structured cost and schedule models.
- Collaborated with product, design, and engineering teams to define and deliver user-centered features on schedule.

PROJECTS

Global Loyalty Card System *May–Jun 2024*
Python, Flask, MySQL, Docker, AWS, OpenTelemetry, JMeter

- Designed a globally distributed loyalty platform across 3 AWS regions with real-time cross-region consistency via MySQL Multi-Master Replication.
- Developed JWT-secured Flask APIs with <5s failover using Docker, Route 53, and ELB for continuous availability.
- Achieved **99.9% uptime**; stress-tested with 10K+ concurrent users; integrated OpenTelemetry and Signoz for real-time observability.

City Disaster Response System *2024*
Django, React, AWS Glue, Step Functions, Google Maps API, NLP

- Built a real-time disaster navigation platform that reroutes vehicles based on live traffic, weather, and hazard data.
- Achieved less than 3s latency from event detection to map update using AWS Glue and Step Functions.
- Integrated Google Maps with Amazon Location overlays and an NLP chatbot (92% intent accuracy); supported 1K+ concurrent users.

Lucene Search Engine *2024*
Java, Apache Lucene, BM25, Vector Space Model

- Developed a document search engine over **1,400** Cranfield aerospace corpus with custom analyzers and Lucene's BM25/VSM ranking.
- Achieved MAP of **0.90** and Recall of **0.96** on TREC-style queries; reduced memory usage by **22%** through tokenizer optimization.
- Enhanced the search engine's efficiency for large-scale document collections.

Machine Translation Evaluation (Thesis) *Aug 2024*
Python, MarianMT, Transformers, BLEU, CHRF, BERTScore

- Benchmarked 4 MT models on **700K+** bilingual sentence pairs; MarianMT scored CHRF **63.7** (+12% gain).
- Identified metric limitations for morphologically rich languages; improved BLEU by **+8.3** with model + tokenizer tuning.
- Proposed hybrid metric framework; improved BERTScore alignment with human evaluation by **+0.18** Pearson correlation.

EDUCATION

Trinity College Dublin, Ireland *2023–2024*
Masters in Computer Science (Level 9 – Master's Equivalent)

RELEVANT COURSEWORK

Advanced Software Engineering, Distributed Systems, Machine Learning, AI, Scalable Computing, Text Analytics, Internet of Things, Security & Privacy, Research Methods, Urban Computing