ESRA CERAN, PHD

github.com/drceran linkedin.com/in/esraceran www.esraceran.com

TECHNICAL SKILLS

Programming Languages | Python 3, JavaScript ES6+, SQL, HTML5, CSS **Frontend** |React, React Hooks, Redux Toolkit, WebSockets, TailwindCSS

Backend | FastAPI, Django 4, SQLAlchemy, PostgreSQL, SQLite, MongoDB, RabbitMQ

System Design | Microservices, AWS, Domain-driven design, Message passing, Event sourcing

PROFESSIONAL EXPERIENCE

Infinity Tech | Software Engineer II

2023- Current

- Enhanced backend performance by refactoring API metric collection into a queue-based async log handler, resulting in a non-blocking system and reducing request processing time by 700ms across all endpoints.
- Optimized code maintainability and reduced redundancy by refactoring boilerplate logging code within endpoints to FastAPI middleware, extending the enhancement to all existing and future endpoints and decreasing average endpoint size by 20 lines of code.
- Spearheaded the implementation of Object Relational Mapping (ORM), advocating its benefits and persuading colleagues to adopt it, leading to a 50% reduction in raw SQL usage for new projects.
- Enhanced development efficiency and code reliability by seamlessly integrating unit and functional test runners into our CI/CD pipeline, streamlining the pull request merge process, and ensuring consistently green builds for the latest code changes.
- Improved database performance by profiling and analyzing production SQL queries, addressing the slowest 5% through strategic measures such as index optimization, query refactoring, join reduction, and preventing full-text searches for varchar fields.
- Strengthened system security by promptly addressing a critical SQL injection vulnerability detected during penetration testing, averting potential catastrophic consequences.

SFSU - IUPUI | Research Assistant and Professor

2017 - 2020

Istanbul University | Research Assistant and Professor

2015 - 2017

OTHER DEVELOPMENT EXPERIENCE

FeelBetter | Software Engineer | *github.com/drceran/feel-better*

2023

- Developed a full-stack web app with a team of four fellows using FastAPI, PostgreSQL, React, Redux, and Tailwind, ensuring timely delivery.
- Minimized UI rendering or data fetching delays through efficient React Hooks and RTK methods.
- Improved developer productivity by automating build and integration processes through a CI/CD pipeline, and integrated GitLab CI with Galvanize Cloud for streamlined deployment.

TechCon | Full Stack Software Engineer | *github.com/drceran/TechCon*

2023

- Created a full-stack web application in Django using Python, React, CSS, Bootstrap, HTML, and SQLite for managing conferences with secure user authentication and interactive user interfaces.
- Improved load times and data transfers by 15% utilizing pub/sub, polling, and messaging queues.
- Optimized management and scalability by deploying microservices within Docker containers.

EDUCATION

Hack Reactor, San Francisco, Advanced Software Engineering Immersive Program **Marmara University**, Istanbul, Ph.D. in STEM Education

2023

2021