

# Salvatore Ficchi

## Full Stack Software Engineer

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### SUMMARY

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Experienced full stack engineer with strong proficiency in Python, Ruby on Rails, React, Next.js, Node.js, Azure and AWS. Skilled in building scalable web applications, designing clean APIs, and developing intuitive frontend interfaces. Adept at solving complex technical problems, optimizing performance, and delivering high-quality code across both client and server environments.

### PROFESSIONAL EXPERIENCE

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#### **Intellias**, Senior Software Engineer

08/2021 – 10/2025 | Chicago, IL

- Built a microservice structure of an online medical advisor app with Python, Ruby on Rails, JavaScript, Node.js using AWS like ECS, EKS.
- Developed an e-learning platform using Angular, Nest.js, incorporating real-time features such as messaging, video/audio calls, notifications using Twilio APIs, RabbitMQ, and LiveKit, and integrated payment gateways.
- Created analysis and report dashboards to track engagement metrics with Prometheus, Elasticsearch, and InfluxDB.
- Optimized server-client communication by leveraging WebSocket protocol buffers, resulting in a 25% reduction in payload size and faster data serialization.
- Used Python's SQLAlchemy ORM to manage database interactions, ensuring data integrity and simplifying complex database operations.
- Employed Python libraries like Pandas, NumPy, and Matplotlib to manipulate, analyze, and visualize large datasets, providing actionable insights for business decisions.
- Crafted and deployed a highly optimized REST API, improving API efficiency by 30% based on analysis of the project.
- Worked on Agile methodology using Slack for collaboration, Azure DevOps for project management, version control, automated testing and Azure Pipelines for building CI/CD pipelines.

#### **Twilio**, Full Stack Software Engineer

09/2019 – 02/2021 | San Francisco, CA

- Built a showcase portal for Twilio's annual conference, using Next.js, Python, Flask, and GraphQL, used by 250+ partners and thousands of users globally.
- Established Twilio's Survey and Feedback system with real-time feedback collection and analysis and defined backend APIs with Python, Flask making it easy for developers to integrate.
- Implemented a suite of new API features for Twilio Verify using JavaScript and Python, enabling real-time verification for over 100,000 daily user transactions.
- Integrated third-party API's such as Stripe, Google Maps and Twilio into existing applications.
- Contribute features to JavaScript and Python based microservices, including real-time signal refreshing and serving.
- Implemented security features using JWT and OAuth2, ensuring robust authentication and authorization mechanisms.
- Reduced backend response times by 30% and improved system scalability by implementing Redis caching strategies, database indexing and query optimization.
- Implemented user-facing financial dashboard portals and verification processes using React.js, D3.js and Chart.js.

**AgileEngine, Software Developer**

05/2015 – 07/2019 | Boca Raton, FL

- Developed several projects including social community platform and sports betting app using React, Angular, Next.js, Ruby on Rails, Node.js and other technologies.
- Implemented route-based micro-frontend on project management app with React, Angular, with features like task management, team collaboration, reporting dashboards and calendar, reducing dependencies and enabling autonomous teamwork.
- Worked with data science teams to preprocess and structure data using Pandas and NumPy, enabling faster model training and testing within production environments.
- Successfully integrated third-party applications and tools, such as Twilio, SendGrid, email marketing services, analytics, inventory management, and shipping solutions to enhance the platform's functionality.
- Ensured proper authorization and access control by implementing OAuth2 and JWT based authentication.
- Executed server-side rendering (SSR) features by NextJS to enhance SEO and improve overall web visibility

**SKILLS**

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**Front End**JavaScript   TypeScript   React   React Native   Next.js   Angular   Vue.js   Redux   Redux ToolKit  
React Hooks**Back End**Python   Ruby   Node.js   Django   Flask   FastAPI   Ruby on Rails   Express.js   Nest.js  
PostgreSQL   MySQL   MongoDB   Firebase   Supabase**DevOps**

Git/GitHub   AWS   GCP   Azure   Docker   Kubernetes   Terraform

**EDUCATION**

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**Saint Leo University, Bachelor's degree in computer science**

2011 – 2014 | Saint Leo, FL

- Conducted research projects during my computer science degree, focusing on software engineering and data-driven systems.
- Gained practical experience developing scalable applications and collaborating with teams to solve real-world problems.