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Summary

Software engineer with 6+ years of experience. For the last 4 years I've been developing applications as a back-end developer mainly with Python 2/3.

I'm currently employed as a Software Engineer (level 4) at 888Spectate, where I actively collaborate with software architects on planning and designing, development and testing software. My tasks usually involve complex domain business logic and performance requirements that demands fast, clean and reliable software.

Some of my recent assignments include:
• Add new features to a real time price-computation microservice whilst complying with processing-time limits. This product saw a ~15% increase in usage after the changes.
• Increase the load capacity of a microservice that performs complex database queries by re-writing the application from an synchronous (Flask) Python 2 to an asynchronous Python 3 framework (Sanic). The new version increased the service's requests per second metrics in 50% on average across its endpoints.
• Implement a failover mechanism in a critical service where data was being lost in high-load scenarios by compressing data at ingestion and offloading chunks of data to an asynchronous flow. Over the last months more than 10k data-packets were lost requiring individual manual processing. No packet was lost since the update.

Skills: Python 2/3, Javascript, SQL, NoSQL, Redis, Linux, Docker, microservices, asynchronous frameworks, AWS, data structures, geospatial data processing.

Experience

888 Software Engineer

888spectate

Jul 2022 - Present (1 year 4 months)
As a software engineer (level 4) in Spectate I design, maintain and implement new features in Python 2 and 3 microservices.

As part of my daily tasks I interact with software architects, QAs and product owners in an scrum team.

• REST API development and asynchronous job processing with Python 2 and 3, Twisted, Sanic, Redis, MySQL and ActiveMQ.
• Unit tests with unittest and pytest.
• Load tests with Locust.

Impact:
• Within my first 6 months at the company delivered a high-impact update in a service used by 1000s of daily customers significantly reducing processing times and system crashes. This product saw a 15% increase in usage after the update.

• Re-wrote a DB-read heavy synchronous Python 2 framework (Flask) microservice to an asynchronous Python 3 framework (Sanic) significantly increasing its requests/s capacity (50% on average across endpoints) under high user load. Increased code coverage from <70 to 94%.
• Implemented a recovery mechanism for data-packets sent from 3rd party services that were being lost when under high load. Every lost packet triggered manual data processing and delay on customer payments. Data loss was reduced from 1k packets/month to 0.

Software Engineer
CI&T
Dec 2021 - Jun 2022 (7 months)
At Dextra/CI&T I worked as a backend software engineer on international projects.

Worked with an USA based team developing microservices in Python 3 for the workspaces booking industry. In addition to designing, implementing, testing and maintaining features, I was directly involved in the adoption of event-driven architecture by the product's microservices.

• REST API development in Python 3 with FastAPI, Pydantic, SQLAlchemy and Alembic.
• Unit and integration tests with pytest.
• AWS services such as Lambda Functions, EventBridge, Aurora (PostgreSQL), CloudWatch and System Manager.
• IaC with Terraform.
• Jenkins CI/CD pipelines and monitoring with DataDog.

Software Engineer
Dextra
Oct 2021 - Nov 2021 (2 months)
Dextra was acquired by CI&T.

Software Engineer
Agres
Aug 2017 - Sep 2021 (4 years 2 months)
As a software engineer at Agres I was a developer on several embedded, web and IoT software projects.

Amid my accomplishments, I'd highlight the delivery of an 1.5 year delayed project in 8 months after taking over as the development lead by coordinating redesign, refactoring and development of critical features.

• Development of an IoT + web system for agricultural machinery tracking and management through UHF and LTE-M radio signals using Python 3.
• Design and development of a microservices-based application for proprietary binary files upload, management that provides data visualization through interactive maps, dashboards, work report files and shapefile generation built in Angular 8, Typescript and Python 3.
• Development of proprietary license files generation library in Java.
• Development of internal web based licensing generation and management application in SpringBoot, Hibernate, PostgreSQL and AngularJS.

• Azure and gitlab CI/CD pipelines.

Intern
Federal University of Technology - Parana

Mar 2017 - Jul 2017 (5 months)

As an intern at the Imaging and Electronic Instrumentation Laboratory I developed several digital image processing (DIP), computer vision (CV) and neural networks real time inference applications in C++ and Python 2. Furthermore, I acted as consultant for Master's candidates on adapting DIP and CV pipelines to the NVIDIA TX1 embedded computing system.

Intern
Budapest University of Technology and Economics

Jun 2015 - Aug 2015 (3 months)

Intern at the Automation and Applied Informatics Department under a professor's guidance. Among my activities, I was responsible for building automated performance analysis software for convolutional neural networks and natural language processing pipelines in Python 2.

Education

Federal University of Technology - Parana
Bachelor of Engineering - BE, Electronics Engineering

Mar 2010 - Jul 2017

Budapest University of Technology and Economics
Exchange Student, Electrical and Software Engineering

Aug 2014 - Aug 2015

Skills

Python (Programming Language) • SQL • NoSQL • Microservices • Object-Oriented Programming (OOP) • Back-End Web Development • Unit Testing • Redis • Serverless Computing • Amazon Web Services (AWS)