

Jonathan Bevington-Ng

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Summary

Product-focused Software Engineer specializing in the architecture and optimization of high-availability distributed systems. Knowledgeable in building fault-tolerant Java middleware for high-throughput environments, with a proven track record of modernizing legacy systems to improve scalability and maintainability. Experienced in managing millions of concurrent transactions and resolving complex production bottlenecks and drive system reliability.

Skills

Programming & Database Languages

Java • Python • SQL

Frameworks & Technologies

Spring • Spring Boot • Spring Data • Spring MVC • Oracle DB • gRPC • Protobuf • JUnit • Mockito • Maven • Jenkins

Certificates

AWS Certified Solutions Architect - Associate • Certified SAFe Agile Practitioner

Work Experience

TNG Technology GmbH, Munich, Germany

February 2024 - Present

Software Engineer

- With a team handling a major European telecommunications eCommerce platform. Engineering high-throughput Java Spring middleware facilitating real-time order processing for millions of in-country users.
- Key responsibilities:
 - a) Engineer high-throughput Java Spring middleware for real-time order processing, supporting 30+ million users and maintaining 99.9% uptime during peak traffic periods.
 - b) Modernize legacy middleware, refactoring technical debt into scalable Spring Boot services; reduced system friction and improved processing reliability for 1+ million daily transactions.
 - c) Build scalable RESTful and SOAP services using Spring Boot for national logistics, ensuring asynchronous processing and system fault-tolerance.
 - d) Manage high-concurrency Oracle DB relational databases, ensuring data integrity and processing speed.
 - e) Debug CI/CD and production issues in a distributed environment, improving deployments and uptime.
 - f) Collaborate with PMs and Business Analysts on compliance of EU regulations into business logic.
- Projects - Product Launches:
 - a) Co-developed a new React TypeScript and Spring Boot cloud-based platform, delivering end-to-end functionality for real-time device management and creation.
 - b) Involved in launching modernized internal processes and reducing device creation time by 80%. Significantly accelerating device deployment and system efficiency.
 - c) Developed a cloud-native delivery service to automate workflows and integrations with external partners. Utilizing AWS and Docker to orchestrate complex data mapping and ensure reliable communication between disparate systems.

Google, United Kingdom

June 2022 - Sept 2022

Intern as a Site Reliability Engineer

- Attached to the [Canary Analysis Service \(CAS\)](#) team. CAS is a widely used service at Google that monitors key metrics on production rollouts.
 - Tasks & Accomplishments:
 - a) Authored design documents for a new systems interface to enhance quality assurance metrics.
 - b) Developed C++ services, integrating with gRPC, Protobuf, Kubernetes and other internal systems.
 - c) Demonstrated ability to collaborate with teams across the organization, including cross-border.
 - d) Delivered long-standing user requests that provided new methods of analysis for CAS to improve product rollout turnaround and service quality for internal stakeholders.
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Education

University of St Andrews, Scotland, United Kingdom
Master In Science (Honours) Computer Science, First Class Honours

Sept 2018 - June 2023

- Graduated with First Class Honours (June 2023)
- Admitted to the **Dean's List for Academic Excellence** for four consecutive years.
- Key Skills: Computer Architecture, Concurrency and Multicore Architecture, Distributed Systems, Communication Systems, Operating Systems, and Artificial Intelligence
- Broader Knowledge: Databases, Programming Language Design, Web Application Development, Natural Language Processing, Algorithm Design, Data Structures, Computational Complexity Analysis, Computer Security, Information Visualization, Software Engineering Principles, and Signal Processing

Garden International School, Kuala Lumpur, Malaysia

June 2016 - June 2018

- **GCE Advanced Levels (A Levels) Examination**
 - a) Sat for Mathematics, Further Mathematics, Computer Science and Economics.
 - b) **Achieved 1A* and 3As.**

Work Experience & Community Projects

Google Developer Student Club, Scotland, United Kingdom

Sept 2021 - Sept 2022

Core Team Member

- Designed and developed workshops about technologies and computer science concepts.
- Contacted alumni to participate in workshops as speakers.
- Successfully launched 6 workshops which reached over 100 people in the local community.

Code First Girls, United Kingdom

Feb 2020 - May 2022

Volunteer Python Instructor

- Taught Python programming and programming design concepts to program participants.
- Appointed as Head Python Instructor for the 2021/2022 academic year.
- Led classes of over fifty people at a time.
- During my tenure, over 200 participants graduated equipped with programming capabilities.

Projects

Federated Social Media Network, University of St Andrews, United Kingdom

- Developed a federated social media network implementing a React frontend and Flask backend.
- As a 5-person team, we worked in Agile with scrums across timezones and periodic reports on the project.
- For the federated network, we successfully interfaced with other teams to agree upon a shared API.

Crash Detecting Bike Helmet, United Kingdom

- Developed a crash detecting bike helmet with the ability to keep track of biking habits.
- Utilized Java and Python to build the application and connect the motion sensors to the bike helmet.
- **Placed as a Runner-Up** at the Jisc Internet of Things Hackathon.

Additional Skills

Languages Spoken: English • Chinese/Mandarin • Malay
