

# Jed Walton

github.com/jedwalton

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## EXPERIENCE

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### Software Engineer

*1x2Network*

Brighton, United Kingdom

*January 2024 - Present*

- Linux, Go, Java, Jenkins, Kafka, Redis, MySQL.
- Implemented an API wrapper for complex use of the bridge design pattern and introduced E2E test service in Go to achieve test coverage of the new API and defined plan to swiftly add test coverage to numerous Sub Bridge implementations. Wrote swagger documentation for the new API.
- Implemented a kafka producer retry process and cron automation to automatically retry failed messages.
- Managed and debugged a complex legacy code base, refactored and introduced new features along with migrating to a new Golang code base.
- Introduced automated unit, integration, regression and E2E testing and Semantic Versioning.
- Used modern practices JIRA, Confluence, Bitbucket. Monday project planning. Daily standups.
- Standardized Git practices to ensure a clear Git history.
- Worked within bare-metal Linux environments and AWS infrastructure.
- Significant exposure to both manual and automated deployments along with debugging and fixing staging and production issues.
- Leveraged observability tools such Loki, Grafana, in conjunction with bare-metal text file based logging leveraging CLI tools such as grep, zgrep to gather insights, debug, and fix issues.
- Interfaced with clients and other teams to provide technical support, gather requirements, provide updates on progress and deliverables including demos and documentation.
- Assisted in the onboarding of new team members and provided mentoring and guidance to junior developers.

### Golang Developer

*Freelance*

Remote

*September 2023 - November 2023*

- Implemented a File Q&A with Vector Databases, and OpenAI.
- Full-Stack Golang and TypeScript Development.
- Integrated OAuth across the stack.
- Integrated Weaviate Vector Database with OpenAI embeddings using PostgreSQL data.
- Gained exposure to Micro-SaaS and product development.
- Implemented complex container orchestration with Docker Compose and live reloading.
- QA techniques including Unit, Integration, and Automated testing in CI.
- Implemented CI/CD Pipelines with GitHub Actions including automated PostgreSQL database backups, rollbacks, migrations, staging and production environments.

### TypeScript Developer

*LucidFX AI Ltd*

Remote

*March 2023 - August 2023*

- Dockerized state of the art video super resolution machine learning algorithms for deployment to production.
- Gained working knowledge of Kubernetes through a spike into the viability of deploying on demand GPU clusters for inferencing SOTA Video Super Resolution Algorithms.
- Gained proficiency with Full-Stack TypeScript with tRPC, Nextjs.
- Designed and implemented a walking skeleton for a new product.

### Full Stack Engineer

*Bidlogix Limited*

Brighton, United Kingdom

*September 2022 - March 2023*

- Worked with large monolithic Java Spring Boot applications and Dockerized build environments.
- Scrum with Atlassian software development with JIRA, Confluence and Bitbucket including Daily Standups, Sprint Planning and Retrospectives.
- Gained working knowledge of Container Orchestration, CICD Pipelines and QA techniques.
- Automated builds, deployments and load tests with a combination of Bitbucket pipelines and Jenkins.
- Developed features within AWS infrastructure including, DynamoDB, CloudWatch Log Insights, CloudFormation, S3, APIGateway.

### Web3 Developer

*Freelance*

Remote

*May 2021 - Sept 2021*

- Gained Web3 full stack web development experience with TypeScript, React, Hardhat, Ethersjs, Solidity, MetaMask, and Infura.
- Gained proficiency in linux.
- Exposed to highly collaborative start up environments.

### Customer Facing Employment

*(18 Months Total)*

Oxford, United Kingdom

*2015 - 2017*

- **The Bullingdon Venue:** 1 Month
- **M&S:** 8 Months
- **The Vaults & Garden Cafe:** 1 Month
- **Waitrose:** 7 Months
- **Walton Street Cycles:** 1 Month

## SKILLS SUMMARY

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- **Languages:** Go, Java, SQL, C, Python
- **Libraries & Frameworks:** Gin, Spring, gRPC
- **Tools:** Git, MySQL, PostgreSQL, Kafka, Redis, Docker, IDEA, Neovim, tmux, i3
- **Platforms:** Linux, GCP, AWS, Github, Bitbucket, Jenkins
- **Soft Skills:** Critical, Pragmatic and Reflective Thinking, Mentoring, Deep Work

## EDUCATION

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- **JetBrains Academy** Online  
*Java Developer, Java Backend Developer* *Sept 2021 - August 2022*  
**Relevant topics include:**
  - Object-oriented programming
  - Functional programming
  - Generic programming
  - Spring Framework
- **University Of Sussex** Brighton, United Kingdom  
*BSc (Hons) - Computer Science and Artificial Intelligence; Degree Classification: 2:1* *October 2018 - June 2021*  
**Courses:**
  - Mathematical Concepts
  - Knowledge and Reasoning
  - Programming Concepts
  - Neural Networks
  - Data Structures & Algorithms
  - Natural Language Engineering
  - Compilers and Computer Architecture
  - Acquired Intelligence & Adaptive Behaviour
  - Software Engineering
  - Computer Vision
  - Further Programming
  - The Ghost in the Machine?
  - Program Analysis
  - Databases
  - Introduction to Programming
  - Human-Computer Interaction
  - Introduction to Computer Systems
  - Web 3D Applications
  - Fundamentals of Machine Learning
  - Ray Traced Reverberation Chamber (Dissertation)
- **University Of Sussex** Brighton, United Kingdom  
*Computing Sciences Foundation Year* *October 2017 - June 2018*  
**Courses:**
  - Mathematics for Computing
  - Database and Application Development
  - Foundation Programming
  - Communication and Learning Skills
  - Program Design
  - Computing Project
- **Cheney 6th Form** Oxford, United Kingdom  
*A-Levels* *Sept 2015 - June 2017*  
**Courses:** Computing, Physics, Music

## PROJECTS

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- **Current Project Activity:** Up-to-date project activity available at [github.com/JedWalton](https://github.com/JedWalton)
- **LucidFX:** Created a walking skeleton to trigger state of the art video super resolution algorithms from the web browser, and inference models in the cloud. Conducted experiments to test the viability of deploying such a product. Outputs of experiments available at <https://www.youtube.com/@drumlucidly>
- **Ray Traced Reverberation Chamber - University Of Sussex - Dissertation 72/100, 1st.:** Completed an extensive piece system design and implementation work under the supervision of Dr Kingsley Sage. The project involved the creation of an artificial reverberation chamber using ray tracing techniques modelling the propagation of sound along with a variety of emulated microphones and a graphical user interface. Worked independently to a large extent, defined the problem boundaries, investigated possible solutions, and presented the results verbally, in writing, and demonstrated them in action.

## HOBBIES AND INTERESTS

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- **Micro-SaaS:** Passionate about building small, profitable, and bootstrapped businesses.
- **Mentoring:** Enthusiastic about sharing knowledge and collaboration to move from A to B efficiently.
- **Drums:** Taught me the value of deliberate practice. Achieved grade 8 with distinction.
- **Lifting Weights:** Allows me to feel grounded and clear-headed. The discipline I have developed reduces perceived effort of cognitive work considerably.

## REFERENCES

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- Available on request.