

Max Bye

Senior Software Engineer

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SUMMARY

Platform-focused Senior Software Engineer with 14+ years experience building backend systems, infrastructure, and optimization platforms in Python, Go, and cloud environments. Led production systems for grid-scale energy optimization, implemented CI/CD and Kubernetes-based deployments, and designed scalable data architectures across Azure and GCP. Experienced working with global stakeholders including UK government and energy trading teams.

EXPERIENCE

Freelance

10/2023 - Present

- Built Peared [website](#) and [Android/iOS](#) app in Dart that matches people at real-world events in Washington, DC.
- Data is stored in Postgres (relational) and MongoDB (NoSQL) to support low-latency real-time event interactions and scalable user matching.
- Developed [Event Tinder](#) using TypeScript React and Node.js for backend APIs.

Senior Software Engineer

08/2023 - 10/2025

BP

- Led development of a grid-scale battery optimization platform in TypeScript, Python, and Go, delivering production-grade optimization services for realtime energy trading.
- Designed distributed data pipelines for time-series resampling using Azure Data Lake and Google Cloud Platform (GKE and Cloud SQL), supporting time-series workflows and reducing infrastructure cost.
- Built CI/CD pipelines with GitHub Actions and GitLab CI, and deployed services to Kubernetes clusters.
- Reduced deployment time and infrastructure costs via containerization and orchestration. integrated authentication and role-based access control across services.

App Developer

01/2025 - Present

Future Resilience Forum

- Designed and built secure digital platform for London based national security forum in collaboration with senior UK government officials.
- Developed Future Resilience Forum app available on [iOS](#) and [Android](#) stores.

Website Designer and Creator

06/2024 - 11/2024

Frazzled

- Designed and developed [FrazzledCafe](#), a mental wellness meetup platform built in TypeScript, with Postgres data models supporting event discovery and user matching.

Senior Software Engineer

02/2023 - 08/2024

Dare

- Led multiple teams on various grid-scale battery web projects ensuring seamless collaboration and successful delivery. Showcased work at Renewable Energy Summit 2024.
- Created multi-environment infrastructure using Terraform and GitHub Actions.
- Provisioned cloud infrastructure using Terraform, defining VPCs, IAM roles, and Kubernetes clusters as code.

Course Leader

11/2021 - 02/2023

General Assembly

- JavaScript and python course leader and teacher.
- Software Engineering Immersion course leader and teacher.

Software Engineer

07/2017 - 02/2023

TechSoup

- Built a vanilla JavaScript data framework that is used across multiple projects.
- Built a reusable TypeScript-based React component library (Storybook), improving cross-project consistency and reducing UI defects.
- Developed several e-commerce applications in React Redux, later simplifying the architecture by transitioning to Jotai.
- Developed an organization management system with MongoDB-backed services.

Senior Software Engineer

09/2016 - 07/2017

Plumis

- Designed and developed a fire sprinkler mapping system using JavaScript, improving visualization and efficiency in building safety planning.
- Migrated application from LEMP to MEAN stack, resulting in a 40% performance improvement and enhanced scalability.

KEY ACHIEVEMENTS

🎯 Mission – Driven Design

Collaborated with prominent leaders in government and health to translate their strategic visions into impactful digital experiences.

🔧 Optimization Platforms

Technical support for bp's renewable and flex energy teams. We are currently ranked as the best grid scale battery optimizer in the UK.

🎓 Teaching and Mentorship

Former software engineer and JavaScript teacher. Have led coding workshops at Aviva, Facebook and HSBC.

KEY SKILLS

BACKEND DEVELOPMENT

Node.js · Java · Go · Python · Microsoft Fabric · Postgres · Azure · Lakehouse · Firebase · MongoDB · SQL · C# · Sentry · GraphQL · Django · AWS · Google Cloud NoSQL · REST · GraphQL · Auth0 · Node.js

CMS

Wordpress · Drupal · Strapi · Jekyll

PROJECT & TASK MANAGEMENT

Git · Jira · Bitbucket · Trello · Azure DevOps · YouTrack · ClickUp · Confluence · Agile Scrum

CI/CD & DEVOPS INTEGRATION

Github Actions · GitLab CI · Docker · IaC Podman · Kubernetes · Terraform Azure · Google Cloud Platform · AWS

FRONTEND DEVELOPMENT

TypeScript · React Context · Ember · Vue · Sass HTML5 · React Native · Bootstrap · Next.js AJAX · Tanstack Table · Jest · Gulp · Redux Playwright · Query · Three.js · Selenium · D3 Cypress · VTK.js · Plotly.js

DESIGN

Adobe suite · Figma · Sketchup · InVision

MORE EXPERIENCE

Frontend Engineer 08/2016 – 09/2016

Rebel Minds

- Created and launched the WordPress website for [The Entrepreneurs Network](#).
- Designed and developed the [Go-Ahead website](#) in React. Created an iOS videogame using Parse for 10,000 concurrent players via cloud gaming.

Software Engineer / Product Manager 01/2016 – 08/2016

Virtually Free

- Designed and developed the Stress Free app for iOS and Android (over 20,000 downloads).
- Contributed as a developer on the Oculus Rift project for VR experiment to prevent anxiety.
- Spoke on a panel at Digital Health London (expo event) and our team won the hackathon.
- Worked on C# Unity version of Stress Free with videogame development team.

App Developer 11/2015 – 01/2016

The School of Life

- Designed and developed an online videogame for 100 Questions with Alain de Botton.

Arduino Developer 11/2014 – 10/2015

Entrepreneurs First

- Developed prototype on Arduino Uno R2 to measure people's sweat and provide
- recommendations.
- Created a recommendations portal with Bootstrap in AngularJS.

Website Designer 04/2014 – 11/2014

Kids Company

- Designed online giant brain with Adobe Flash in ActionScript. People could buy virtual neurons that raised money for brain cancer research.

Lead Trainer and Course Developer 12/2013 – 04/2014

Freeformers

- Web developer and designer for the Freeformers and Makethingsdostuff websites.
- Created and managed six volunteer hubs, teaching coding to underprivileged children.
- Developed a JavaScript coding workshop for clients such as Barclays Bank, Aviva, and Facebook.

Co-Founder 02/2013 – 10/2013

Boxticks

- Helped raise a seed round investment.
- Designed and developed a travel and adventure website.

Internship: Website Developer 09/2012 – 12/2012

M&C Saatchi

- Won the M&C Saatchi hackathon. Developed websites for Coca-Cola, Jameson Whiskey, and created a Twitter app for the 2012 Olympics.

Internship: Hardware Specialist 07/2007 – 11/2007

Goldman Sachs

- Assisted with hardware and technical support.

EDUCATION

Master of Computer Games & Entertainment 09/2011 – 06/2012

University of Goldsmiths London

BSc Physics 09/2008 – 06/2011

Southampton University

CERTIFICATIONS

CompTIA Security+

Computer security, including cybersecurity threats, vulnerabilities, and assessments, incident response, and hybrid and cloud environments.

JLPT N5

Japanese-language proficiency test.

University College London evening courses.

INTERESTS

Music

I have a few albums out on Spotify.

Making videogames

I made a series of online games that can be played from my website.

Art

I have published a comic book and I love to paint.

Soccer

I play weekly league games.

Volunteering

Weekly in a kitchen to feed the community. Bi-weekly work in a library to teach code - usually a familiarity using LLMs for code generation, refactoring, testing support, and rapid prototyping.