

# Lucas Boyd *Senior Software Engineer*

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## PROFILE

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**Senior Full-Stack Engineer** with **15+ years** of experience designing and developing **scalable web applications** and **cloud-native solutions**. Proficient in modern technologies including **JavaScript, TypeScript, Python, Go, React, Node.js, AWS, Azure, Kubernetes, and Docker**. Expertise in **full-stack development, microservices architecture, CI/CD pipelines, and database optimization** with **PostgreSQL, MongoDB, and Redis**. Proven track record of **enhancing system performance, reducing latency, and improving deployment efficiency** across diverse projects and industries. Strong problem-solving skills and a commitment to delivering **high-quality, maintainable code**.

## SKILLS

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### Languages & Runtimes

JavaScript/TypeScript, Node.js, Python, Go, Ruby, SQL, Java, C#

### Frontend

React, Next.js, Redux, React Testing Library, Material-UI, Ant Design, Tailwind CSS

### Backend

Express.js, Gin, Ruby on Rails, Django, Flask, .NET Core

### Cloud & DevOps

AWS, Azure, Docker, Kubernetes, Terraform, GitHub Actions, Jenkins, ArgoCD

### Databases

PostgreSQL, MySQL, MongoDB, Redis

### Tools & Methods

Microservices, REST/GraphQL APIs, Agile/Scrum, TDD, DevOps

### Testing

Unit, Integration, & E2E Testing in Go, Jest, React Testing Library, Cypress, Playwright, xUnit, Postman/Newman

## EDUCATION

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### Kennesaw State University

08/2007 – 05/2009 | Kennesaw, GA

- *Master's Degree / Computer Science*

### Kennesaw State University

08/2003 – 05/2007 | Kennesaw, GA

- *Bachelor's Degree / Computer Science*

## PROFESSIONAL EXPERIENCE

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### Law School Admission Council (LSAC)

04/2023 – Present

#### *Senior Software Engineer*

Pennsylvania, United States - Remote

- Architected and led the modernization of legacy systems into a scalable microfrontend platform using **React, Next.js, and TypeScript**, resulting in a **45%** reduction in JavaScript bundle size and a **30%** improvement in Core Web Vitals
- Engineered high-performance, low-latency backend services with **Node.js and .NET Core**, optimizing data access patterns and reducing average API response times by **25%** for thousands of daily users
- Spearheaded the implementation of a zero-trust security model using **OAuth 2.0, SAML, and RBAC**, which eliminated **40%** of all prior authentication-related incident tickets
- Designed and deployed a **GitHub Actions-driven CI/CD pipeline** with integrated security scanning and automated testing, slashing deployment failures by **60%** and enabling reliable multiple releases per week
- Increased system resilience and performance by implementing event-driven architectures with **Azure Service Bus and Redis caching**, reducing direct database load and improving overall system uptime
- Established a comprehensive observability framework using **Azure Monitor, App Insights, and Grafana**, creating actionable dashboards that reduced Mean Time to Resolution (MTTR) for production incidents by **35%**
- Drove a **50%** reduction in customer-reported UI defects by championing a rigorous testing strategy with **React Testing Library and Playwright**, and enforcing strict code review standards
- Mentored and upskilled **3** mid-level developers on cloud-native principles, system design, and performance optimization techniques, elevating the team's overall technical output

### Turing.com

07/2018 – 01/2023

#### *Senior Software Engineer*

California, United States - Remote

- Led the end-to-end development of data-intensive full-stack applications for global clients using **React, Next.js, Node.js, and GraphQL**, improving platform reliability and user engagement
- Engineered a serverless microservices architecture on **AWS using Lambda, API Gateway, S3, and DynamoDB**, achieving automatic scaling and reducing infrastructure costs by **40%**
- Built complex, interactive dashboards with **React and D3.js**, which processed and visualized large datasets and decreased UI load times by **28%**
- Established a comprehensive **CI/CD pipeline using GitHub Actions and CircleCI**, automating testing and deployment to accelerate release cycles by **35%**
- Spearheaded the adoption of a full-stack test automation strategy with **Jest, Cypress, and Playwright**, slashing production regression defects by **40%**
- Modernized legacy **Node.js** monoliths into decoupled services, resulting in a **30%** reduction in runtime error rates and improved system maintainability
- Implemented advanced observability with **AWS CloudWatch and the ELK Stack**, creating custom dashboards and alerts that reduced mean time to detection (MTTD) for critical issues
- Secured applications by designing and implementing custom **OAuth2 flows, JWT validation, and RBAC systems**, eliminating several critical security vulnerabilities

### Toptal

09/2016 – 02/2018

#### *Senior Full Stack Engineer*

California, United States - Remote

- Architected and delivered enterprise-grade SaaS features for global clients using **React, Node.js, and TypeScript**, improving scalability and developer experience
- Designed and built high-performance **GraphQL and REST APIs using Node.js (Express) and PostgreSQL**, implementing advanced caching and query optimization to reduce data load times by **33%**
- Led the development of a reusable **UI component library with React and Storybook**, which standardized design across products and reduced front-end development time for new features by **20%**

- Integrated multiple third-party services including payment processors (**Stripe**), CRMs, and analytics platforms, creating a seamless ecosystem for client applications
- Drove front-end performance optimizations through **code-splitting, memoization, and virtualization**, significantly improving Lighthouse scores and user-perceived performance
- Established a robust quality assurance pipeline by introducing **Jest, React Testing Library, and Cypress**, increasing test coverage from **20% to 80%** and drastically reducing production bugs
- Mentored client engineering teams on modern **JavaScript patterns, component-driven architecture, and full-stack best practices**, improving code quality and team velocity

## BairesDev

06/2013 – 05/2016

### *Full Stack Developer*

California, United States - Remote

- Engineered full-stack web applications for enterprise clients, utilizing **AngularJS, jQuery, and Bootstrap** on the frontend with **PHP (Laravel) and Python** backend systems
- Developed and consumed **RESTful APIs**, integrating third-party services for payment processing, authentication, and data analytics
- Improved backend performance by **30%** by optimizing complex **SQL queries** and implementing caching strategies with **Redis**
- Built dynamic, responsive user interfaces with **HTML5, CSS3, and Sass**, ensuring cross-browser compatibility and a consistent user experience
- Championed the adoption of modern front-end practices and contributed to early projects using **React** as it gained industry traction
- Collaborated within **Agile/Scrum** teams to deliver production-ready features, improving team efficiency by introducing improved **Git version control workflows**

## Accenture

11/2009 – 02/2013

### *Software Engineer*

California, United States - Remote

- Developed **full-stack applications** using **jQuery** and **Backbone.js**, with **PHP** and **Python** backend services, delivering **15+ solutions** for enterprise and startup clients across **multiple industries**
- Designed and optimized **MySQL** schemas, writing efficient **SQL queries** and stored procedures that improved **reporting performance by 25%** and **data retrieval speeds by 40%**
- Built **RESTful APIs** to support frontend applications and integrate **external systems**, improving **system reliability by 30%** and reducing **average response times by 200ms**
- Applied **OOP principles** and **MVC patterns** to produce maintainable, scalable codebases, reducing **code maintenance time by 20%**
- Experimented with early **Node.js** during internal R&D, exploring modern **JavaScript patterns** later adopted by **3 project teams** as the platform matured
- Collaborated with **distributed teams** using **Agile practices**, contributing to **12+ successful project deployments** with **99% on-time delivery**