Chris Arnesen

San Diego, California
chris.arnesen@gmail.com
617-803-1773

Experience

STAFF SOFTWARE ENGINEER, INFRASTRUCTURE • FLOCK FREIGHT • OCTOBER 2019 - PRESENT

Managed cloud computing resources and application technology for a Series B technology startup during a period of exponential growth (Google Cloud Platform, MySQL Docker, Kubernetes, Python, Node.js, Terraform, Java). Provided architectural guidance and oversight. Diagnosed and remedied production outages and performance issues (Datadog).

OPEN-SOURCE SOFTWARE ENGINEER • JANUARY 2015 - PRESENT

Contributed to popular open-source TypeScript packages and developed new ones e.g. A command-line interface (CLI) framework for Node.js and web browser. See also @carnesen on GitHub.

SENIOR WEB DEVELOPER • ALWAYSAI • FEBRUARY 2019 - OCTOBER 2019

Designed and built a fledgling computer-vision startup's software-as-as-service (SaaS) platform and command-line interface (CLI) (Node.js, TypeScript, Postgres, AWS Lambda, Docker). Implemented user-facing web browser applications (React, Next.js).

LEAD FRONT-END ENGINEER (CONTRACT) • AMERIPRISE FINANCIAL • OCTOBER 2017 - JULY 2018

Led efforts to modernize and standardize web browser development across the enterprise (React, Node.js, TypeScript, npm, create-react-app).

SENIOR SOFTWARE ENGINEER (CONTRACT) • YA ENGAGE • APRIL 2017 - SEPTEMBER 2017

Developed a custom Node.js framework to automated the provisioning of cloud resources and deployment of web applications. Developed multi-tenant web services (Node.js, Postgres, AWS) and custom websites (React, AngularJS).

SENIOR SOFTWARE ENGINEER • GLOBAL TRAFFIC TECHNOLOGIES • FEBRUARY 2016 - MARCH 2017

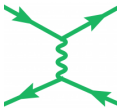
Led a nascent web engineering team. Evangelized adoption of engineering best practices. Built web services running in the cloud and embedded on city buses (Node.js, MongoDB). Designed and built browser-based real-time admin interfaces (React, WebSockets).

LEAD DEVOPS ENGINEER • STORYCLOUD • MARCH - DECEMBER 2014

Configured cloud computing resources for a Silicon Valley startup (AWS, Hadoop, Elasticache, Kafka). Standardized local development and cloud deployment environments (Vagrant, Python, Vagrant).

SOFTWARE CONSULTANT, AB INITIO SOFTWARE • APRIL 2009 - DECEMBER 2013

Provided support and on-site technical assistance, training, and application development for high-value enterprise customers. Built mission-critical high-volume data processing applications, batch (ETL) and real-time. Invented a novel data differencing algorithm.



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Experience continued

POSTDOCTORAL RESEARCHER, CARNEGIE MELLON UNIVERSITY • SEPTEMBER 2007 - JANUARY 2009

Calculated Higgs boson production rates at the Large Hadron Collider (LHC) (quantum field theory, Mathematica, Fortran)

Education

PH.D. PHYSICS • MASSACHUSETTS INSTITUTE OF TECHNOLOGY • 2002-2007

Thesis: Model-independent approaches to QCD and B decays

B.S. PHYSICS • CALIFORNIA INSTITUTE OF TECHNOLOGY • 1997-2001

Skills

Web engineering, DevOps, technical writing, application architecture, distributed data processing, consulting, security, configuration management, automation, testing

- Programming languages: TypeScript, JavaScript, Python, HTML, REST, CSS, Java, Ab Initio, SQL, Bash, Shell, Markdown
- Web tech: Node.js, Express, Koa, Hapi, React, Redux, Angular, Webpack, Babel, Next.js, HTTP, HTTPS, WebSockets
- Cloud providers: Amazon Web Services (AWS), Google Cloud Platform (GCP)
- Configuration management: Ansible, Terraform, Vagrant
- Cloud native: Kubernetes, Docker, Helm, Argo
- Databases: MySQL, PostgreSQL, MongoDB, Bitcoin, SQL Server, Teradata, Oracle, Hadoop, HBase, ElastiCache, Ab Initio multifiles
- Queuing: Google Pub/Sub, Kafka, Ab Initio queues
- Version control: Git, npm, Subversion, Maven, Perforce
- Other technologies: Blockchain, GitHub, virtualization, Datadog, New Relic
- Operating Systems: Linux, macOS, Windows, AIX, SunOS, z/Linux
- Math & physics: linear algebra, geometry, quantum mechanics, quantum field theory, statistics, calculus, trigonometry, complex analysis, Fourier series, linear regression, classical mechanics, symmetry groups, genetic algorithms