



Chris Arnesen

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## Experience

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

Managed cloud computing resources for a Series B technology startup during a period of exponential growth. Wrote connector code for new infrastructure resources (Pub/Sub in Python, Redis in Java). Diagnosed and remedied production outages. Provided architectural oversight for application development.

### **SENIOR WEB DEVELOPER • ALWAYS AI • FEBRUARY 2019 - OCTOBER 2019**

Built a fledgling software startup's SaaS platform and command-line interface (CLI).

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

Led efforts to modernize and standardize web browser development across the enterprise.

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

Automated the provisioning of cloud resources and deployment of web applications. Developed multi-tenant web services and custom websites.

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

Led a nascent web engineering team. Built web apps running in the cloud and on city buses.

### **OPEN-SOURCE SOFTWARE ENGINEER • JANUARY 2015 - PRESENT**

Contributed to popular open-source software packages and developed new ones.

### **LEAD DEVOPS ENGINEER • STORYCLOUD • MARCH - DECEMBER 2014**

Configured cloud computing resources for a Silicon Valley startup. Standardized local development and cloud deployment environments.

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

Provided support, on-site technical assistance and training to our customers building mission-critical high-volume data processing applications. Invented a novel data differencing algorithm.

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

Calculated Higgs boson production rates at the Large Hadron Collider (LHC).

## Education

Ph.D. Physics, Massachusetts Institute of Technology, Cambridge MA, 2002-2007

B.S. Physics, California Institute of Technology, Pasadena CA, 1997-2001

## Skills

- General: Web engineering, DevOps, technical writing, application architecture, distributed data processing, consulting, security, configuration management, automation, testing
- Programming languages: TypeScript, JavaScript, Python, HTML, CSS, Java, Ab Initio, SQL, Bash, Shell, Markdown
- Web tech: Node.js, Express, Koa, Hapi, React, Redux, Angular, Webpack, Babel, Next.js
- Cloud providers: Amazon Web Services (AWS), Google Cloud Platform (GCP)
- Configuration management: Ansible, Terraform
- Cloud native: Kubernetes, Docker, Helm, Argo
- Databases: MySQL, PostgreSQL, MongoDB, Bitcoin, SQL Server, Teradata, Oracle, Hadoop, HBase, ElastiCache, Ab Initio multfiles
- Queuing: Google Pub/Sub, Kafka, WebSphere MQ, RabbitMQ, Ab Initio queues
- Version control: Git, npm, Subversion, Maven, Perforce
- Other technologies: Blockchain, GitHub, virtualization, Vagrant, REST, 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