



Chris Arnesen

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## Skills

Software engineering, application architecture, distributed data processing, DevOps, technical writing, teaching, curriculum development, consulting, customer interaction, leadership, security, configuration management, automation, testing, modeling

- Languages: JavaScript, HTML, CSS, Ab Initio, SQL, Ansible, Mathematica, Bash, Ksh, Python, PHP, Fortran, LaTeX, Cobol, Markdown, Java, Matlab
- Databases: PostgreSQL, MongoDB, SQL Server, Bitcoin, Teradata, Oracle, Hadoop, HBase, Kafka, ElastiCache, MySQL, WebSphere MQ, Ab Initio multfiles and queues
- Version control: Git, GitHub, SVN, Maven, Gulp, npm, Perforce
- Web technologies: Node.js, Angular, React, Redux, WSDL, REST, remote procedure calls, Mediawiki, Jade, Google APIs
- Cloud computing: Amazon Web Services, Google Cloud, Heroku
- Operating Systems: Windows, Mac OS X, Linux, 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

## Experience

### **SOFTWARE ENGINEERING STUDENT • PRIME DIGITAL ACADEMY • OCTOBER 2015 - FEBRUARY 2016**

18-week accelerated learning program teaching foundational software engineering skills through a full stack web development curriculum with a focus on collaborative coding, public speaking, and solving real-world problems.

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

Wrote open-source JavaScript programs for the Bitcoin Core daemon, bitcoind. Attended Blockchain University, a 10-week program on Bitcoin and other cryptographic currencies. Contributed to Bitseed Personal Bitcoin Server community software program.

### **DEVOPS ENGINEER, STORYCLOUD • MOUNTAIN VIEW, CA • MARCH - DECEMBER 2014**

Configured cloud computing resources for a web startup with a focus on security and scalability. Standardized laptop development environments using virtualization and configuration management. Implemented continuous build-test-release pipelines and live monitoring for our source code.

## Experience

### **FIELD CONSULTANT, AB INITIO SOFTWARE • JUNE 2011 - DECEMBER 2013**

Translated big-data applications to the Ab Initio programming language. Developed data differencing algorithms to test program output. Architected the merger of critical mainframe applications at a major airline.

### **INTERNAL CONSULTANT, AB INITIO SOFTWARE • LEXINGTON, MA • APRIL 2009 - MAY 2011**

Responded to customer support requests about application design, best practices, performance tuning, software failures in development and in production. Developed and delivered instructor-led training courses. Unified the company's disparate training and demo programs into a single lightweight installer.

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

Calculated limits on the rate of Higgs boson production at the Large Hadron Collider.

## Education

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

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