

MATTHEW LEBOURGEOIS

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- QUALIFICATIONS**
- Acted as one of two primary backend engineers translating product ideas and advanced data analyses into a customer facing website for DPM. The product included both online and offline data analyses and was delivered via a RESTful API all built atop AWS infrastructure.
 - Scaled Akamai's Domain Name System (DNS) performance engineer team from one to six members and built personal team management skills to lead team to support brand new recursive DNS product without any loss in reliability of Akamai's world-class DNS infrastructure.
 - Collaborated with management, customer care, professional services and product and system architects across Akamai to design new features, enhance existing features, troubleshoot scalability and reliability issues and manage incident response with regards to all systems integrated with Akamai's DNS products and infrastructure.
 - Protected DNS infrastructure from distributed denial-of-service attacks in an increasingly dangerous Internet landscape by utilizing advanced knowledge of the DNS protocol, years of experience running and scaling reliable distributed systems, and solid networking skills. Maintained 100% end-user uptime.
 - Working in concert with development team, helped identify, design and test new product and system features as well as design and handle safe rollout of all new software into production.
 - Pulling from databases, log files and various unique sources of data, performed data analyses to support capacity planning, performance and reliability measurements and incident response.
 - Using over 8 years of Python and 14 years of C++ experience, developed a complete object-oriented data analysis framework to sift through the five gigabytes per second of data streaming from the Compact Muon Solenoid (CMS) detector.
 - Performed advanced statistical analysis, partly using multivariate techniques, to determine the discovery significance of the subset of CMS data compatible with the Higgs boson.

TECHNICAL SKILLS

Languages: *Proficient* in Python, BASH, SQL; *experienced* in C, C++; *beginner* in Scala, Go
OS and software: *Skilled and experienced* in Linux, OS X
Additional: DNS *expert*; *proficient* with AWS, VIM, L^AT_EX, git, GNU Make, Flask, REST

PROFESSIONAL EXPERIENCE

Director, System Architecture **May, 2019 - Present**
Data Scientist **May, 2018 - April, 2019**
Data Plus Math, Corp.

- Wore multiple hats including mentor, architect, software engineer and data scientist in order to translate hundreds of terabytes of proprietary customer data into a working, scalable, production-quality and revenue-producing product.

Performance Engineer, Principal Lead **March, 2015 - April, 2018**
Performance Engineer, Senior Lead **June, 2013 - March, 2015**
Performance Engineer, Senior **August, 2012 - June, 2013**
Akamai Technologies, Inc.

- Inherited, maintained, improved, monitored and became principally responsible for the performance of highly visible, distributed DNS infrastructure critical to the safe operation of Akamai's core content delivery network as well as Akamai's three DNS products.

Graduate Research Assistant, Particle Physics **January, 2006 - August, 2012**
University of California, San Diego

- Worked on the Compact Muon Solenoid detector at the Large Hadron Collider in Geneva, Switzerland analyzing massive amounts of data to find any small hints of the Higgs boson, the last undiscovered particle predicted by the Standard Model of particle physics.

EDUCATION

Ph.D., Physics, University of California, San Diego **June, 2012**
• Thesis: Search for the Higgs Boson in the Fully Leptonic WW Decay Channel at CMS
B.S., Physics, University of Houston **May, 2005**
• Mathematics Minor, Magna Cum Laude