

# NATE DIRE

P: XXX  
E: XXX  
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## SUMMARY

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- Proven lead software engineer with contributions to all phases of SDLC from research to post-release support.
- Grew into architect role while helping to scale enterprise storage product from \$0 to over \$500M revenue.
- Designed and supported production code in FreeBSD user-space and kernel, running on high-performance clusters up to 144 nodes and 15 PB.
- Advanced knowledge of C, Python, and Subversion.
- Familiar with C#, C++, Git, Java, R, SAS, and SQL.

## EDUCATION

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### Whitman College

B.A. Mathematics, *cum laude*, May 1998

- Phi Beta Kappa
- Presented numerical analysis research at 1998 AMS/MAA Annual Meeting.

### University of Washington

M.S. Computer Science, June 2005

### UCSD Extension

Biostatistics Certificate, December 2011

Data Mining Certificate, September 2012

## WORK HISTORY

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### StatFame, LLC, Seattle, WA

*Software Engineer* (part-time)

June 2012 - present

- Built box score import scheme for multiple data sources using C# and T-SQL for Azure deployment. Implemented HTML scrape import.

### EMC, Isilon Division (formerly Isilon Systems), Seattle, WA

*Consultant Software Engineer*

April 2011 - present

- Writing over 200-page product internal architecture document in  $\text{\LaTeX}$  for new engineers and technical field personnel (part-time since April 2012).
- Presented clustered file system architecture at EMC World 2011 and 2012.
- Designed and implemented new BSD vnode operation locking to enable file system filter API.
- Met with customers and consulted on product deployment configurations.
- Managed large cluster scalability roadmap.
- Member of product architecture team.

*Lead Software Engineer*

August 2008 - April 2011

- Independently formed multi-department group to create field product configuration tool used by all sales engineers.
- Development lead for multiple feature maintenance releases.
- Wrote Subversion wrapper in Python to enforce best practices.
- Led design and implementation of 2<sup>nd</sup>-generation, multithreaded and distributed job engine which scales to 144 nodes.
- Led design and implementation of file system SSD strategy.
- Planned and executed roadmaps for tiering and integrity features.

*Software Engineer*

March 2003 - August 2008

- Manually fixed on-disk corruption on live production systems.
- Implemented special customer requests, from consultation to specification to delivery.
- Co-led design and implementation of file system quotas.
- Researched and evaluated erasure codes. Implemented Reed-Solomon codes for 4-failure protection, including hand-optimized x86 assembly with SSE2 instructions.
- Designed and implemented mark-and-sweep collection for orphaned file system structures.
- Independently researched reliability analysis techniques. Implemented Monte Carlo simulator in C++. Coordinated Mean-Time-To-Data-Loss estimation with Marketing, QA, and Operations.
- Designed, implemented, and supported clustered job engine in Python, which scaled to 96 nodes.