

# Nick Nielsen

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[www.nicknielsen.org](http://www.nicknielsen.org)
**Tendril Networks, Inc** Boulder, CO

**Data Scientist** PRESENT  
**Orchestrated Energy** Jun 2017

- Took on a dual Software Engineering and Data Science role to build scalable, sustainable data science applications
- Designed and implemented AWS serverless architecture to surpass 10x scalability targets while reducing operating costs by over 90% and machine learning runtime by over 50%
- Built and launched the first 3rd party partnership with Google Nest, tripling the target market
- Architected queue-based machine learning systems
- Led a cross-functional science & engineering team to improve operational excellence

**C2 Consulting** Hingham, MA

**Consultant** AUG 2016  
**Oracle Technologies** JUN 2015

- Led research and development of 'Internet of Things' devices within the Oracle Database ecosystem.
- Produced the [Build Something! IOT= Internet + Oracle + Things](#) presentation, which received the "Overall Top Speaker" award at ODTUG Kscope 2015, the largest Oracle user group conference
- Developed secure, reliable customer management and information systems for Harvard Pilgrim Health Care with Oracle Database and APEX

**The University of Chicago** JUN 2017

- BA in Mathematics, Minor in Visual Art
- Captain, Varsity Cross Country and Track & Field

**Python**  
 ★★★★★

- Led the architectural design and implementation of Python based machine learning applications within a serverless AWS ecosystem
- Handled the upgrade of complex machine learning systems from Python 2.7 to 3.6
- Extensive experience enhancing & refactoring complex legacy code bases

**Amazon Web Services**  
 ★★★★★

- Architected science applications to save thousands of dollars in monthly AWS costs
- Developed new machine learning and data processing applications with AWS Lambda, SQS, S3, DynamoDB, CloudFormation, and API Gateway
- Implemented complete build systems for machine learning projects using AWS CloudFormation, Serverless Application Model, CodeBuild, and CodePipeline

**Pandas, NumPy, SciKit-Learn, Matplotlib**  
 ★★★★★

- Leveraged the Python data science stack within serverless and no-SQL frameworks
- Improved data processing performance by 1000x using Pandas and NumPy vectorization
- Owned complex visualizations required for monitoring optimization performance and system operation

**SQL, PL/SQL**  
 ★★★★★

- Implemented Oracle PL/SQL to build secure health insurance information systems
- Utilized Postgres Database for primary storage of the device metadata and history required to run machine learning algorithms