

# David Lin

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## Education

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**University of California, Berkeley** Aug, 2015 - May, 2019  
**Major** B.S. Electrical Engineering and Computer Sciences (EECS)  
**Selected Coursework** Algorithms, Artificial Intelligence, Data Science, Database Systems, Machine Learning, Natural Language Processing, Operating Systems, Probability and Random Processes

## Experience

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**Software Development Engineer Intern, Data** – [Amazon](#), Seattle May, 2018 - Aug, 2018

- Reduce friction in Alexa-user interactions by defining a novel property graph representation
- Build ETL for batch processing on 500+ GBs of data and optimize performance for Spark DAG
- Develop CLI program with Apache Spark backend using SQL/DataFrame and GraphX libraries

**Researcher, Computer Vision/Mapping** – [Berkeley DeepDrive](#), UC Berkeley Sept, 2017 - Present

- Develop real-time simultaneous localization and mapping system for autonomous driving (see proj)

**Online Manager** – [The Daily Californian](#), Berkeley July, 2017 - May, 2018

- Manage website redesign team and newspaper's online/mobile dept serving 10,000+ daily uniques

**Software Engineer Intern, Backend/Data** – [Quantcast](#), San Francisco May, 2017 - Aug, 2017

- Automate weekly service to find 1,000+ publisher site statuses with 100% accuracy (up from 60%)
- Uses cloud infrastructure (Terraform, AWS), data access layer (HikariCP, JDBC), REST APIs (Spark)
- MapReduce jobs on terabytes of cookie metadata to determine campaign reporting start/end dates

**System Admin and Researcher, Robotics** – [AUTOLAB](#), UC Berkeley Jan, 2016 - May, 2017

- Research and software dev under Prof Ken Goldberg for autonomous driving and explainable AI
- Maintenance/on-call for two Linux servers (20+ sites/databases) for lab of 30+ grad/ug students

**Data Analyst Intern** – [GT Nexus](#) (acquired by Infor), Hong Kong July, 2015 - August, 2015

- Implement intranet Google Analytics tracking, perform A/B tests, and customize adoption reports

## Projects

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**Lidar 3D Reconstruction** – Computer Vision/Mapping Research Sept, 2017 - Present

- Reconstruct a 3D model of the dynamic scene by implementing point cloud registration with ICP
- Use Lidar point cloud data to create depth and surface normal maps for lidar/camera calibration

**Natural Language Processing** – Machine Learning Aug, 2017 - Dec, 2017

- Construct convolutional neural network for text classification, maximum entropy Markov model for part-of-speech tagging, and machine learning models for coreference resolution

## Skills

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**Languages** Java, Python, SQL, C, Scheme, PHP, Ruby/Rails, JavaScript, HTML, CSS, LaTeX  
**Technologies** Apache Hadoop/Spark, AWS (EB, SQS, SNS, RDS), Python Libraries (NumPy, SciPy, pandas, scikit-learn, scikit-image, NLTK, Tensorflow), Jupyter Notebook