Michael A. Kennedy

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Education

University of California, Berkeley   Berkeley, CA
Master of Information and Data Science   *expected Aug 2016*

University of California, Davis   Davis, CA
B.S. in Biochemistry and Molecular Biology with Honors,   *June 2012*
Citation for Outstanding Performance in Biochemistry and Molecular Biology

Projects

Large Scale Temperature Forecasting in Spark
Designed a data pipeline and machine learning platform for weather forecasting using openly available data

Predictions are crafted using a decision tree running on a Spark cluster backed by 1TB of current and historic data from weather stations around the country. The 24h predictions of this algorithm are accurate to less than a degree.

Visualization of Speech Recognition Algorithms
Created an interactive visualization of speech recognition models

This visualization provides a high level overview of the computational decision-making process of a common class of speech recognition algorithms. The presentation is built using a curated data set parsed with pandas and LibROSA, and presented with the assistance of wavesurfer.js and D3.js tied together with AngularJS.

Work Experience

UC Davis Medical Center Department of Pathology and Laboratory Medicine
Polage Lab – Staff Research Associate   *Oct 2012 – present*

- Analyzed treatment regimens, laboratory results, and clinical outcomes spanning tens of thousands of patients and hundreds of indicators using RDBMS and object oriented programming.
- Communicated results to stakeholders and funding agencies.
- Securely managed healthcare data sets using HIPAA compliant de-identification and encryption.
- Built data pipelines for the aggregation of clinical data.
- Organized and directed multidisciplinary teams on large scale projects.

Selected Publications

Coauthor*: "Overdiagnosis of Clostridium difficile Infection in the Molecular Test Era." JAMA Internal Medicine, 175(11), 1792-1801 (2015).*
    Distinguished Clinical Research Achievement Award – Clinical Research Forum

Coauthor*: "Outcomes in Clostridium difficile Patients with Negative Toxin Immunoassay Results." IDWeek, San Diego, CA, 2013.*

Coauthor*: "Misclassification of Community-Onset Clostridium difficile Infection (CDI) as Hospital-Onset CDI at an Academic Medical Center." IDWeek, San Diego, CA, 2015.*

Skills

Preferred Languages: Spark, Python, Hadoop, SQL
Experience with: R, Scala, Java, Javascript, BASH, VBA, Excel, Tableau, OriginPro