### DEEP LEARNING SUMMIT
Room: Grand Ballroom G-L

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:15</td>
<td>BPGrad: Towards Global Optimality in Deep Learning via Branch and Pruning</td>
<td>Ziming Zhang, Research Scientist, MERL</td>
<td>@merl_news</td>
</tr>
<tr>
<td>09:35</td>
<td>Deeplearn.js: A Hardware Accelerated Machine Intelligence Library for the Web</td>
<td>Nikhil Thorat &amp; Daniel Smilkov, Software Engineers, Google Brain</td>
<td>@nsthorat &amp; @dsmilkov</td>
</tr>
<tr>
<td>09:55</td>
<td>Tensor Comprehensions</td>
<td>William Moses, PhD Student, MIT</td>
<td>@MIT_CSAIL</td>
</tr>
<tr>
<td>10:15</td>
<td>Hyperscale Deep Learning for the Masses</td>
<td>Fabio Buso, Head of Engineering, Logical Clocks</td>
<td>@logicalclocks</td>
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### DL IN HEALTHCARE SUMMIT
Room: Grand Ballroom A-F

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>09:15</td>
<td>Machine Learning in Radiology</td>
<td>Amir Tahmasebi, Senior Research Scientist, Philips Cambridge Innovation Labs</td>
<td>@Philips</td>
</tr>
<tr>
<td>09:35</td>
<td>Using AI-Guided Analytics in Early Stage Clinical Trials</td>
<td>Eric Milliman, Data Scientist, Berg</td>
<td>@BergHealth</td>
</tr>
<tr>
<td>09:55</td>
<td>Accelerating High Throughput Drug Discovery Using Deep Learning</td>
<td>Yusuf Roohani, Data Scientist, GSK</td>
<td>@GSK</td>
</tr>
<tr>
<td>10:15</td>
<td>DeepVariant: Highly Accurate Genomes With Deep Neural Networks</td>
<td>Cory McLean, Sr Software Engineer, Google Brain</td>
<td>@google</td>
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<tr>
<td>10:35 - 11:20</td>
<td>COFFEE</td>
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<tr>
<td>10:35 - 11:20</td>
<td>DEEP CNNs</td>
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<tr>
<td>11:20 - 11:50</td>
<td>Prediction of Opioid Cessation Using Machine Learning</td>
<td>Jiayi Wu Cox, PhD Candidate, Boston University @jennysixer</td>
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<td>11:20 - 11:50</td>
<td>Computational Photography with Deep Learning</td>
<td>Michael Sollami, Lead Data Scientist, Salesforce @msollami</td>
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<td>11:50 - 12:20</td>
<td>NLP IN HEALTHCARE</td>
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<td>11:50 - 12:20</td>
<td>Neural Networks for Forecasting Demand</td>
<td>Sergul Aydore, Machine Learning Scientist, Amazon @sergulaydore</td>
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</tr>
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<td>11:50 - 12:20</td>
<td>Deep Patient: Predict the Medical Future of Patients with Deep Learning and EHRs</td>
<td>Riccardo Miotto, Senior Data Scientist, Icahn School of Medicine @mioppius</td>
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<tr>
<td>12:00 - 12:30</td>
<td>LUNCH</td>
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<tr>
<td>12:00 - 12:30</td>
<td>NATURAL LANGUAGE UNDERSTANDING</td>
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<td>12:00 - 12:30</td>
<td>DL-Based Clinical Temporal Relation Extraction</td>
<td>Chen Lin, Informatician, Boston Children’s Hospital @BostonChildrens</td>
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<tr>
<td>13:30 - 13:50</td>
<td>PREDICTING PROGRESSION</td>
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<td>13:30 - 13:50</td>
<td>Latent Models (Shallow and Deep) for Recommender Systems</td>
<td>Anoop Deoras, Lead Researcher, Netflix @adeoras</td>
<td></td>
</tr>
<tr>
<td>13:30 - 13:50</td>
<td>Clinical Natural Language Processing with Deep Learning</td>
<td>Sadid Hasan, Senior Scientist, Philips Research @PhilipsResearch</td>
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<tr>
<td>13:50 - 14:10</td>
<td>SPEECH RECOGNITION</td>
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<tr>
<td>13:50 - 14:10</td>
<td>Collecting Movement Data &amp; Predicting Surgical Outcomes</td>
<td>Lukasz Kidzinski, Researcher, Stanford University @kidzik</td>
<td></td>
</tr>
<tr>
<td>14:10 - 14:30</td>
<td>Predicting Individual Physiologically Acceptable States at Discharge from a Pediatric Intensive Care Unit</td>
<td>David Ledbetter, Senior Data Scientist, Children’s Hospital LA @ChildrensLA</td>
<td></td>
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</table>
**DEEP LEARNING IN MEDICAL IMAGING**

14:30 - 14:50
Image-Based Morphological Profiling Using Deep Learning
Juan Caicedo, Postdoctoral Researcher, Broad Institute @jccaicedo

14:50 - 15:40        COFFEE

**Deep Speech: Free(ing) Speech with Deep Learning**
Kelly Davis, Machine Learning Researcher, Mozilla @mozilla

15:40 - 16:00
Adversarial Learning for Text-to-Image Synthesis
Miriam Cha, PhD Candidate, Harvard University @harvard

16:00 - 16:20
Self-Supervision in Mobile Robots in the Deep Learning Era
Sudeep Pillai, Machine Learning Research Scientist at Toyota Research Institute @sudeeppillai

**Deep Learning Opportunities in Cancer Imaging**
Ahmed Hosny, Data Scientist, Dana-Farber Cancer Institute @ahmedhosny

**WORKSHOP - Quincy/Heymarket, Upper Lobby**
15:40-16:20 - Distributed Tensorflow: Scaling Model Training to Multiple GPUs
Neil Tenenholtz, Director of Machine Learning, MGH & BWH Center for Clinical Data Science @ntenenz

16:00 - 16:20
From Pixels to Clinical Insight
Polina Golland, Professor, MIT CSAIL @MIT_CSAIL

**WORKSHOP - Quincy/Heymarket, Upper Lobby**
16.25 - 17:00 - The ROI of Deep Learning Applications - Is it Worth it?
Mark Homer, Director, Data Science, Aetna @marklhomer
Zac Kriegman, Senior Data Scientist, Thomson Reuters Innovation Lab @thomsonreuters

Moderator: Matthew Sutton, Advisor, Harvard Ventures @harvardventures
16:20 - 17:00
PANEL: Is the Biggest Challenge Facing AI an Ethical One?
Cansu Canca, Founder/Director, AI Ethics Lab @ccansu
Gabriele Fariello, Instructor in ML & AI / CIO, Harvard University / University of Rhode Island @g_fariello
Kathy Pham, Fellow, Harvard Berkman Klein Center @kathytpham
Moderator: Simon Mueller, Co-Founder & VP, The Future Society @sim0nmueller

17:00 - 18:00 NETWORKING DRINKS

Networking drinks will be served from 5-6pm in the Palm Garden.
Please take your agenda with you and bring back tomorrow to reduce on paper use!
Book your place at a future RE•WORK Summit in the next 2 weeks using the Alumni code: ALUMNIMAY for 20%

Doors will open at 8.15am tomorrow. See you then!
## DEEP LEARNING SUMMIT

**Room: Grand Ballroom G-L**

### STARTUP SESSION

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<td>09:15</td>
<td>The Matrix – Programmable Matter</td>
<td>Bill Aronson, CEO, AI Research Group</td>
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<td>09:35</td>
<td>Using Deep Learning to Generate and Assess Natural Language</td>
<td>Neil Yager, Chief Scientist, Phrasee</td>
</tr>
<tr>
<td>09:55</td>
<td>What Can We Learn from Slack Data about Human Collaboration Using NLP and Research in Psychology?</td>
<td>Charles Ahmadzadeh, Co-Founder &amp; Engineering, Bunch.ai</td>
</tr>
<tr>
<td>10:15</td>
<td>Engineering Common Sense</td>
<td>Yibiao Zhao, Co-Founder &amp; CEO, iSee</td>
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*Note: All times are in EDT.*

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## DEEP LEARNING IN HEALTHCARE SUMMIT

**Room: Grand Ballroom A-F**

### STARTUP SESSION

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<td>Programming Living Organisms Through Targeted Machine Learning</td>
<td>Joe Isaacson, VP of Engineering, Asimov</td>
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<td>09:35</td>
<td>Building the Patient Tensor: The Total Is More Than the Sum of Its Parts</td>
<td>Fernando Schwartz, Chief Data Scientist, Prognos @prognosAI</td>
</tr>
<tr>
<td>09:55</td>
<td>Lifestyle-Based Human Health and Well Being, from Knowledge Representation to Knowledge Generation</td>
<td>Victor Chapela, Co-founder &amp; CEO &amp; Ricardo Corral, Chief Data Scientist, Suggestic</td>
</tr>
<tr>
<td>10:15</td>
<td>Deep Learning in the Health Record: Discovering Meaning in Clinical Text</td>
<td>Mayur Saxena, CEO &amp; Tasha Nagamine, Chief of AI, Droice Labs @DroiceLabs</td>
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### Day 2 Schedule Overview

- **08:15 - 09:00:** Registration & Light Breakfast
- **09:00:** Welcome
- **09:15 - 10:35:** Deep Learning Summit
  - Room: Grand Ballroom G-L
  - Start-up Session:
    - The Matrix – Programmable Matter
    - Using Deep Learning to Generate and Assess Natural Language
    - What Can We Learn from Slack Data about Human Collaboration Using NLP and Research in Psychology?
    - Engineering Common Sense
  - 10:35 - 11:20: Coffee
- **09:15 - 10:35:** Deep Learning in Healthcare Summit
  - Room: Grand Ballroom A-F
  - Start-up Session:
    - Programming Living Organisms Through Targeted Machine Learning
    - Building the Patient Tensor: The Total Is More Than the Sum of Its Parts
    - Lifestyle-Based Human Health and Well Being, from Knowledge Representation to Knowledge Generation
    - Deep Learning in the Health Record: Discovering Meaning in Clinical Text
  - 10:35 - 11:20: Coffee

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**DEEP LEARNING SUMMIT & DEEP LEARNING IN HEALTHCARE SUMMIT**

**BOSTON • MAY 24 & 25**
<table>
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<tr>
<th>Time</th>
<th>Application of Deep Learning in Industry</th>
<th>Application of Deep Learning in Healthcare</th>
</tr>
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</table>
| 11:20 - 11:40 | Deep User-History Aggregates With Application to Twitter Timelines Ranking  
Jeshua Bratman, Staff Engineer, Twitter Cortex @Twitter | Machine Learning in the Healthcare Enterprise  
Mark Michalski, Executive Director, MGH & BWH Center for Clinical Data Science @MarkHMichalski |
| 11:40 - 12:00 | The Path to a Personalized, On-Device Virtual Assistant  
Chris Lott, Senior Director of Engineering, Qualcomm Technologies @Qualcomm | Lung Cancer Detection and Segmentation Using Deep Learning  
Daniel Golden, Director of Machine Learning, Arterys @ArterysInc |
| 12:00 - 12:30 | PANEL: How Can You Redefine Your Industry With the Application of Deep Learning?  
Tom Wilde, CEO, indico @tomrwilde  
David Nydam, CEO, BIA  
Sumedh Mehta, CIO, Putnam Investments @sumedhMehta  
Moderator: Aditya Kaul, Research Director, Tractica @kaulout | Using Machine Learning to Improve Care of Chronically Ill Patients  
Tommy Blanchard, Data Science Lead, Fresenius Medical Care @TommyCBBlanchard |
| 12:30 - 13:40 | LUNCH | LUNCH |

**WORKSHOP** - Quincy/Heymarket, Upper Lobby  
13:40-14:15 - Your Future in Deep Learning  
Rachita Chandra, Solutions Architect, IBM Watson Health @IBMWatsonHealth
13:40 - 14:00
Improving TripAdvisor Photo Selection With Deep Learning
Greg Amis, Principal Software Engineer, TripAdvisor @TripAdvisor

13:30 - 13:50
Developing Deep Learning-Based Solutions for Radiology
David Richmond, Senior Scientist, IBM Watson Health @IBMWatsonHealth

14:00 - 14:20
Geometric Deep Learning in Multigraphs for Movie Recommender Systems
Miguel Campo, SVP of Data Science & Analytics, Twentieth Century Fox Film @20thcenturyfox

13:50 - 14:10
Detecting Mobility Functions in Free Text as an Indicator of Disability
Ayah Zirikly, Postdoctoral Fellow, The National Institute of Health @NIH

14:10 - 14:30
Early Detection of Alzheimer’s Disease with Deep Learning
Ayin Vala, Co-Founder & Chief Data Scientist, Foundation for Precision Medicine

14:30 - 15:00
PANEL: How to Balance Ethics and Efficiency When Applying AI in Healthcare
Dekel Gelbman, CEO, FDNA @fdna
Cansu Canca, Founder/Director, AI Ethics Lab @ccansu
Adrian Gropper, CTO, Patient Privacy Rights @agropper
Moderator: Wen Dombrowski, Chief Convergence Officer, CATALAIZE @HealthcareWen

14:20 - 14:40
Deep Learning Architectures for Large-Scale Online Payments Fraud Detection
Nitin Sharma, Distinguished Scientist, PayPal @PayPal

14:40 - 15:00
Using Deep Learning to Detect Anomalies in Time Series Data
Narine Kokhlikyan, Machine Learning Engineer, Slice Technologies @HelloSlice

14:20-15:00 - Your Future in Deep Learning
Hyuk-Jeen Suh, Head, Samsung Ventures @hyukjeen
Matthew Sutton, Advisor, Harvard Ventures @harvardventures
Daniel Golden, Director of Machine Learning, Arterys @ArterysInc

15:00 END OF SUMMIT