**邝东阳**

**Curriculum Vitae**

**Live in the moment. Learn from the past. Dream for the future.**

**基本情况**

**出生年月**： 1989年5月29日

**个人网站**： <https://dykuang.github.io>

**电子邮箱**：[dykuang@outlook.com](mailto:dykuang@outlook.com)

**Github**： <https://github.com/dykuang>

**LinkedIn**： <https://www.linkedin.com/in/dykuang> **![A person wearing glasses and smiling at the camera

Description automatically generated]()**

**工作经历**

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| **博士后** |  | *2019.08-present* |

**Oden Institute for Computational Engineering & Sciences University of Texas at Austin**

* 高能物理数据库和数据平台的建立，数据分析，机器学习深度学习模型及工具的开发

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| **博士后** |  | *2017.09-2019.07* |

**Data Science and Machine Learning Group University of Ottawa**

* 本科生教学，硕士生辅导
* 深度学习工具在医疗图像和非线性动态系统中的应用
* Affiliation Award with Vector Institute Toronto for Artificial Intelligence.（未领取）

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| **访问助理教授** |  | *2016.08-2017.06* |

**Dept. of mathematics Southern Utah University**

* 本科生教学，系内课题研究

**教育背景**

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| **博士(数学)**  University of Wyoming, Laramie, Wyoming | GPA：3.956/4.00 | *2012.01-2016.08* |

* + 毕业论文：A Particle Method for Euler-Poincare Equation and Its Applications in Analysis of Landmark Based Image Templates.
  + 导师：Prof. Long Lee. Dept. of Mathematics. University of Wyoming.

* 英语：大学英语六级（579）、大学生英语竞赛三等奖

**专业技能**

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| 熟练使用CAD软件，对设计/施工图纸较为熟悉  EIAProA、EIAW、EIAN等预测软件对环评工作进行辅助  全国计算机等级考试二级MS Office高级应用  大学英语六级cet-6 | **熟练使用**  **熟练操作**  **精通**  **通过** |

**环评相关经历/项目**

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| **环保工程师助理** | **清华环保技术有限公司** | **//** *2010.3-2010.6* |

* 负责协助项目可行性研究文件的编写，设备配选以及设备价格的选择
* 参与工程施工设计及重大施工方案的讨论和审定
* 负责部分初设图纸的绘制以及部分非标设备图纸绘制说明的编写工作
* 负责在施工现场为项目施工过程提供技术支持

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| **课程设计** | **校内给水曝气系统设计改造** | **//** *2008.6-2009.3* |

* 构建研究区地下水数值模拟并制作相关展示文件以作演示使用

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| **认识实习** | **七星水库** | **//** *2008.6-2009.3* |

* 学习了解水库环保设备工作流程，运行原理及效率
* 获得清华大学社会实践优秀个人荣誉
* **若要添加经历，点击项目名称，单击左上角出现的十字标，全选标题后复制粘贴在上一段文字后。**

**校园活动**

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| **电子票务员**  **活动组织、学风管理** | **清华票务公司**  **院自律委员会副主席** | **//** *2009.2-2009.6*  **//** *2007.1-2009.11* |

**特长爱好**

喜欢围棋，加入院篮球队，并多次在校篮球比赛中取得优异成绩

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| **本科(数学)**  中国科学技术大学，安徽合肥 | GPA：3.50/4.30  排名：29/100 | *2007.09-2011.06* |

* + 毕业论文：Numerical Integration of Two Variables Based on Small Amounts of Sample Points.
  + 导师：Prof. 邓建松. 中国科学技术大学，安徽合肥

**会议论文**

* + **Data-enabled Fusion Technology (DeFT): Machine Learning Tools in the Ousai Platform***Craig Michoski, David Hatch, Todd Oliver, Dongyang Kuang, Steph-Y Louis, Siwei Luo, Matthieu Vitse*2021/11/11 (to appear)Bulletin of the American Physical Society, American Physical Society
  + Cycle-consistent training for Reducing Negative Jacobian Determinantin Deep Registration Networks.  
    Dongyang KuangSimulation and Synthesis in Medical Imaging (SASHIMI) 2019  
    LNCS, vol 11827, pp. 1-10, 2019.In conjunction with MICCAI 2019, October 13, 2019, Shenzhen, China  
    [https://doi.org/10.1007/978-3-030-32778-1 13](https://doi.org/10.1007/978-3-030-32778-1%2013)
  + **FAIM - A ConvNet Method for Unsupervised 3D Medical Image Registration.***Dongyang Kuang and Tanya Schmah*Machine Learning in Medical Imaging (MLMI) 2019.  
    *LNCS vol 11861, pp. 1-9, 2019.*In conjunction with MICCAI 2019, October 13, 2019, Shenzhen, China  
    [*https://doi.org/10.1007/978-3-030-32692-0 74*](https://doi.org/10.1007/978-3-030-32692-0%2074)

**杂志论文**

* + **Dual stream neural networks for brain signal classification**

*Dongyang Kuang and Craig Michoski*Journal of Neural Engineering.

*Volume 18. No.1. 2021.*

* + **Kinetics and mechanism of** *CO*2 **gasification of coal catalyzed by** *Na*2*CO*3**,***F eCO*3 **and** *Na*2*CO*3 *- F eCO*3  
    *Bang Xu, Qingxi Cao, Dongyang Kuang, Khaled.A.M.Gasem, Hertanto Adidharma, Dong Ding and Maohong, Fan\*.*Journal of the Energy Institute.

*Volume 93, Issue 3, pp 922-933, 2020*

* + **Landmark-based algorithms for group average and pattern recognition.***Snehalata Huzurbazar, Dongyang Kuang and Long Lee\**Pattern Recognition  
    *Volume 86, pp 172-187. 2019*
  + **Some optional methods of activation energy determination on pyrolysis***Bang Xu and Dongyang Kuang\**Kinetics and Catalysis.  
    *Volume 60. No. 2. 137-146. 2019*.

* **Predicting kinetic triplets using a 1d convolutional neural network.***Dongyang Kuang and Bang Xu\**Thermochimica Acta  
  *Volume 669, pp 8-15. 2018*
* **A geodesic landmark shooting algorithm for template matching and its applications.***Roberto Camassa, Dongyang Kuang\* and Long Lee*SIAM Journal on Imaging Sciences.  
  *Volume 10, Issue 1, pp 303-334. 2017*
* **Characterization of Powder River Basin coal pyrolysis with cost-effective and**

**environmentally friendly composite Na-Fe catalysts in a thermogravimetric**

**analyzer and a fixed-bed reactor***Bang Xu, Dongyang Kuang, Fangjing Liu, Wenyang Lu, Alexander K.Goroncyc, Ting He, Khaled Gasem and Maohong Fan\**International Journal of Hydrogen Energy.  
*Volume 43, Issue 14, pp 6918-6935. 2018*

* **Solitary waves and N-particle algorithms for a class of Euler-Poincar´e  
  equations.** *(Highlights of the Year 2016)  
  Roberto Camassa, Dongyang Kuang\* and Long Lee*Studies in Applied Mathematics.  
  *Volume 137, Issue 4. pp 502-546. 2016*
* **A conservative formulation and a numerical algorithm for the doublegyre nonlinear shallow-water model.***Dongyang Kuang and Long Lee\**Numerical Mathematics: Theory, Methods and Applications.  
  *Volume 8. Issue. 4. pp 634-650. 2015*.

**在投论文**

* A 1d convolutional network for leaf and time series classification.
* SEER-Net: a simple EEG-based emotional recognition network.
* MGKDB: A MongoDB for **Gyrokinetic** **Electromagnetic Numerical** **Experiment**
* A method from system identification on System Architectures for Integrated Analysis (SAFIA)

**学术项目**

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| * **开发针对网络课程中学生注意力变化的实时分析工具** 2020.11 -   Oden Institute, University of Texas at Austin, USA  负责人：Craig Michoski   * **开发针对等离子体线性实验(PLX)的数据分析工具** 2019.11 -   Oden Institute, University of Texas at Austin, USA  负责人：Craig Michoski   * **基于EEG 信号的人机识别任务** 2019.10 -   Oden Institute, University of Texas at Austin, USA  负责人：Craig Michoski   * **数据库的开发，数据平台的搭建及机器学习，深度学习工具在其中的应用** 2019.08 -   Oden Institute, University of Texas at Austin, USA  负责人：David Hatch, Craig Michoski   * **深度学习在医疗图像和非线性动态系统的应用** 2017.09 – 2019.05   Data Science and Machine Learning Group, University of Ottawa, Canada  负责人：Tanya Schmah, Cristina Stoica   * **便携式设备中基于Raman 波谱的物质检测** 2018.05 - 2018.06   NRC-Ottawa Industrial Problem Solving Workshop, National Research Council, Ottawa, Canada   * **基于转动惯量方法的卫星姿势制御的可视化**  2017.10 – 2017.11   Dept. of mathematics and Statics. University of Ottawa, Canada  负责人：Tanya Schmah, Cristina Stoica   * **深度学习方法在生物质热重实验中的应用及新方法的开发**  2017.07 -   (和朋友一起的个人兴趣项目)  负责人：Bang Xu   * **多个模式识别课程项目** 2015.09 – 2015.12   Dept. of Electrical Engineering. University of Wyoming. USA  负责人：Cammeron Wright   * **简明Bootstrap Sampling (课程项目)** 2015.01 – 2015.04   Dept. of Statistics. University of Wyoming. USA  负责人：Blair Robertson   * **Ito 随机方程模型解的模拟 (课程项目)** 2014.09 – 2014.12   Dept. of Mathematics. University of Wyoming. USA  负责人：Hakima Bessaih   * **Parabolic PDE 解法包（课程项目）** 2014.09 – 2014.12   Dept. of Mathematics. University of Wyoming. USA  负责人：Craig. C. Douglas   * **关于校学生历史录取数据的分析和招募建议（课程项目）** 2014.01 – 2014.05   Dept. of Mathematics. University of Wyoming. USA  负责人：Craig. C. Douglas   * **NURBS 时间序列模型与数据重建 （大研计划）** 2010.06 – 2010.09   计算机学院，中国科学技术大学  负责人：邵晨曦   * **手机用户的行为分析 （课程项目）** 2010.02 – 2010.06   数学与统计学院，中国科学技术大学  负责人：杨周旺 |
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**学术讲演**

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| * **FAIM - A ConvNet Method for Unsupervised 3D Medical Image Registration(Poster)**   *10th International Workshop on Machine Learning in Medical Imaging*  *In conjunction with MICCAI.* 2019.10  Shenzhen, China   * Cycle-consistent training for Reducing Negative Jacobian Determinantin Deep Registration Networks. **(Poster)**   *4th International Workshop on Simulation and Synthesis in Medical Imaging*  *In conjunction with MICCAI***.** 2019.10  Shenzhen, China   * Convnets, a different view of approximating diffeomorphisms in medicalimage registration. 2018.12 Shape Analysis, Stochastic Geometric Mechanics and Applied Optimal Transport Workshop,   Banff International Research Station, Banff, Alberta, Canada   * Improve Effectiveness of Spectral Matching in Portable Raman Spectrometers. 2018.05  NRC-Ottawa Industrial Problem Solving Workshop, NRC, Ottawa, Canada * Medical image registration with neural networks. 2018.04  Statistical Learning Workshop, Univ. of Ottawa, Ottawa, Canada * 2B or not 2B? It is a mathematical question. 2017.02  Chatham University, Pittsburgh, PA, USA * **A Bayesian method on landmark momentum data for abnormality detection.** 2016.06 *RMMC-Functional Analytic and Statistical Methods in Error Prediction with Applications. Univ. of Wyoming, USA* 2016.10   *Southern Utah University, Cedar City, Utah, USA* * Shape analysis based on landmark representation. 2015.05  Applied and Computational Mathematics Seminars, Univ. of Wyoming, Laramie, USA * The N-particle system for EPDiff and its applications in shape analysis. 2015.03 Graduate Students Seminars, Univ. of Wyoming, Laramie, USA |

**参与会议**

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| * 22nd International Conference on Medical Image Computing and computer assisted   Intervention (MICCAI 2019). 2019.10  *Shenzhen, China*   * Shape Analysis, Stochastic Geometric Mechanics and Applied Optimal Transport. 2018.12   *Banff International Research Station, Alberta, Canada* * 32nd Conference on Neural Information Processing Systems (NeurIPS) 2018.12  *Montreal, Quebec, Canada* * NRC-Ottawa Industrial Problem Solving Workshop. 2018.05  *Fields Institute - Canada National Research Council - University of Ottawa, Canada* * Geometric PDEs and Their Approximation. 2016.01   *Texas A&M Univ., College Station, Texas, US.*   * Rocky Mountain Mathematics Consortium (RMMC) - *Functional Analytic and Statistical Methods in Error Prediction with Applications.*  2016.06  *Univ. of Wyoming, Laramie, Wyoming, US.* * Rocky Mountain Mathematics Consortium (RMMC) - *Stochastic Differential Equations.*  2014.06  *Univ. of Wyoming, Laramie, Wyoming, US.* |

**荣誉奖项**

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| Affiliation Award with Vector Institute for Artificial Intelligence.[[1]](#endnote-1)  Travel award for winter school in Texas A&M University  Graduate assistantship, Univ. of Wyoming  国家励志奖学金（一等）  大学生研究计划一等奖  唐仲英奖学金  中国科学技术大学优秀学生奖学金 | **2019.03**  **2015.11**  **2012-2016**  **2009-2011**  **2010**  **2010**  **2008-2011** |

**社会经历**

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| 志愿者The data Effect conference in Ottawa, CA  中国留学生和学者协会（CSSA）志愿者  校羽毛球俱乐部officer | **2018.05**  **2016.02**  **2015-2016** |

**技能与爱好**

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| **编程语言**：   * 熟练: Python, Matlab * 有经验: C, C++, R, Mathematica, SQL, MongoDB, Shell, Julia |  |

**外语**：

英语 （八年北美经历， 雅思8.0）

**学术兴趣**：

人工智能，深度学习，机器学习，数据分析，数学建模，科学计算，数据可视化

**业余爱好**：

旅行，羽毛球，乒乓球，网球

1. 由于工作变动，未领取 [↑](#endnote-ref-1)