Dan Adler

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Blog: http://dadler.co/engineering-beauty

EDUCATION

Bachelor of Science, GPA 3.91/4.00 2016
The Johns Hopkins University
Double Major in Biomedical Engineering (BME) and Applied Mathematics and Statistics (AMS), minor in Computer Science (CS), specializations in computational biology and optimization.

FORMAL EXPERIENCE

Educator & Course Developer 2018-Present
Coder Academy

- Developing a two-year technology innovation boot camp for the Australia Post. See more information: `https://auspost.com.au/jobs/tech-academy`
- Teaching students and professionals about skills needed to enter a career in Computer Science

Associate, Advisory Analytics 2016-2018
PricewaterhouseCoopers

- Drove large investments into community health by working with provider systems to analyze their patient populations using public/proprietary datasets, machine learning and simulation
- Worked on the creation of an application in PySpark hosted on a hadoop-environment to perform automated optimization and data mashing using a set of linear programming and k-nearest neighbor based algorithms
- Performed data cleaning and merging for a large pharmaceutical company to better track their product performance
- Investigated the use of an Agent Based Model (ABM) to assess the market potential for a new Pharmacogenomic (PGx) test

Intern, Advisory Analytics 2015
PricewaterhouseCoopers

- Utilized Natural Language Processing (NLP) to help a health care client pull structured information from physicians' notes

Tracy T. Lefteroff Intern 2014
Fogarty Institute for Innovation, Materna Medical

- Worked with Materna to market their device to potential clinical trial users
- Performed verification and validation testing on the Materna device

Student Researcher 2013-2014
Kennedy Krieger Neuroscience Department

- Researched the long-term effects of developmental brain injury using mouse models and patient EEGs
- First-authored a paper detailing the effects of in utero inflammation on adult mice

Research Intern 2013
The Children's Hospital of Philadelphia Center for Autism Research (CAR)

- Analyzed the effects of biological reward on adults and children with and without Autism Spectrum Disorders (ASD) through preparing simulations and studying fMRI's

RESEARCH PROJECTS

Computational algorithms to improve medical scheduling 2014-2016
The Johns Hopkins University Applied Mathematics and Computer Science Departments
Worked with JHU students, faculty and clinicians to create custom patient and staff scheduling algorithms. Performed market research to assess the need of computational tools within hospital operations.

Automated RGBD to C-arm calibration 2016
The Johns Hopkins University Computer Aided Medical Procedures (CAMP) Lab
Centered on utilizing computer vision techniques to create an automated calibration algorithm that overlaid a Cone Beam Computer Tomography (CBCT) image with a live Red-Green-Blue-Depth Camera (RGBD) image.

How might we improve the educational experiences for new immigrants? 2015
IDEO Course for Human Centered Design (HCD)
Worked with Johns Hopkins University students on an independent project utilizing HCD approaches to discover educational barriers for Hispanic immigrants in the Baltimore community.

Subcutaneous injection of therapeutic monoclonal antibody injections 2012-2013
The Johns Hopkins Center for Bioengineering Innovation & Design (CBID)
Prototyped a subcutaneous injection device for Janssen Pharmaceuticals to re-suspend monoclonal antibody (mAb) particles and shorten prior intravenous (IV) injection treatment.

LEADERHIP

Tau Beta Pi Maryland Alpha Chapter President, 2015-2016
Johns Hopkins Clinic Scheduling Team Leader, 2014-2016
THREAD Head of Family, 2015-2016

PROFESSIONAL ORGANIZATIONS

Tau Beta Pi Engineering Honors Society, 2014-Present
Upsilon Pi Epsilon Honor Society, 2016-Present

PEER-REVIEWED PUBLICATIONS

Adler D. A., Ammanuel S., Lei J., Dada T., Borbiev T., Johnston M., Kadam S. D., Burd I. (2014). Circadian cycle dependent EEG biomarkers of pathogenicity in adult mice following prenatal exposure to in utero inflammation. *Neuroscience, 275*, 305–313. doi: 10.1016/j.neuroscience.2014.06.022

Ammanuel S., Chan W. C., **Adler D. A.**, Lakshamanan B. M., Gupta S. S., Ewen J. B., Johnston M. V., Marcus C. L., Naidu S., Kadam S. D. (2015). Heightened Delta Power during Slow-Wave-Sleep in Patients with Rett Syndrome Associated with Poor Sleep Efficiency. *PLoS ONE, 10*(10): e0138113. doi: 10.1371/journal.pone.0138113

Kang S., Ammanuel S., Thodupunuri S., **Adler D. A.**, Johnston M. V., Kadam S. D. (2018). Sleep dysfunction following neonatal ischemic seizures are differential by neonatal age of insult as determined by qEEG in a mouse model. *Neurobiology of Disease, 116*, 1-12. doi: 10.1016/j.nbd.2018.04.012

FORMAL PRESENTATIONS

Computer Integrated Surgery Design Day, Presented poster on CBCT-RGBD Calibration, Spring 2016

Malone Center for Engineering in Healthcare Retreat, Gave an oral presentation on computational medical scheduling algorithms, Spring 2016

CBID Design Day 2016, Presented poster on medical scheduling algorithms, Spring 2016

DC I-Corps Final Pitching Session, Gave an oral presentation on the current market of scheduling-based software within hospitals and medical clinics, Fall 2015

9th Hershey Conference on Developmental Brain Injury, Presented poster on effects of in utero inflammation on adult mice, Spring 2014

CBID Design Day 2013, Presented prototype of subcutaneous injection device for mAb treatments, Spring 2013

HONORS & AWARDS

University Honors, Spring 2016
Biomedical Engineering Departmental Honors, Spring 2016

Applied Mathematics and Statistics Departmental Honors, Spring 2016
Dean's List, Fall 2012 - Spring 2016
Biomedical Engineering Richard J. Johns Award, Spring 2016
Applied Mathematics and Statistics Mathematical Modeling Award, Spring 2015

TEACHING EXPERIENCE

PwC R Bootcamp, Spring 2017, Python Bootcamp, Fall 2017, Spring 2018
TEALS, Microsoft Philanthropies Introduction to Computer Science, Fall 2017, Spring 2018
BME 580.222 Signals, Systems and Controls, Spring 2016
AMS 550.111 Statistical Analysis 1, Fall 2015

SKILLS

Programming Languages
Proficient: *Python, R, C++, MATLAB, LaTeX, Java, HTML, CSS*
Familiar: *SQL, PySpark, C, Bash, JavaScript, jQuery, PHP*

Software
Proficient: *RStudio, AnyLogic, SQLite, GCP*
Familiar: *Eclipse, Tableau, Photoshop, MySQL*

REFERENCES

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