

Theerapat (Poom) Chiarawongse

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Experience

- Data Science Intern** : *Python, Scikit-Learn, Matplotlib, Vue.js, Julia*
Sep 2017 – Present : *Current:* Write an optimized Julia library for decision tree learning and ensemble methods.
Brown Center for Computation and Visualization : Process extracted high-level information such as recurring topics from the British Hansard, a corpus of 250 million words, using natural language processing algorithms like Latent Dirichlet Allocation.
: Compute optimal embedding of high dimensional topic data in low dimensional space to create perceptually accurate visualizations of topic clusters in the corpus.
: Designed and maintained architecture-less webpages for data visualization.
- Programming Intern** : *Vue.js, d3.js, Python, Bootstrap*
Sep 2017 – Present : *Current:* Rewrite and maintain a legacy web application for course materials.
Brown School of Professional Studies : Automated the process of creating online pages for courses.
: Designed and implemented an efficient HTML-aware search-and-replace on top of the API with a user-friendly interface.
- Student Researcher** : *Python, SciPy, Mathematica, SymPy, MatLab*
Mar 2017 – Sep 2017 : Predicted theoretical transmission eigenvalue distributions of light propagation through multimode fibers using Free Probability Theory.
Wesleyan University Department of Physics : Confirmed predictions against computer simulations and experimental data.
- Tutor** : Drop-in tutor for the Mathematics department. Held help sessions for Mathematics classes
Jan 2017 – Jun 2017 : Including: Real Analysis, Abstract Algebra, Multivariable Calculus, Linear Algebra, et cetera.
Wesleyan University

Education

- Brown University** : 4.00/4.00 GPA. With a focus on Artificial Intelligence and Machine Learning.
Sep 2017 – May 2019 : Relevant Coursework: Machine Learning. Deep Learning. Algorithms. Information Theory. Graduate Probability Theory. Graduate Functional Analysis. Graduate Commutative Algebra.
B.Sc. Computer Science and Mathematics
- Wesleyan University** : 3.90/4.00 GPA. Transferred to Brown. Completed the requirements for the Mathematics major.
Aug 2015 – Sep 2017 : Awarded the Sherman Prize (2016) and the Robertson Prize (2017) by examination and faculty nomination for excellence in freshman and sophomore mathematics.
B.A. Mathematics : Won Honorable Mention at the ASA Wesleyan Datafest.
: Relevant Coursework: Functional Programming. Automata Theory. Imperative Programming. Bayesian Data Analysis. Latent Variable Analysis. Hierarchical Linear Models. Special Relativity. Chaos Theory. Modeling and Data Analysis. Graduate Topology. Graduate Analysis. Graduate Algebra.

Side Projects

- Language Detector** : *Python, Tensorflow*
Nov 2017 : Detect from 21 European languages from input texts with a recurrent neural network with 99.4% accuracy on test set.
: Robust against misspellings, capitalization, and missing or unreadable characters.
- Reddit Haiku Bot** : *Python, Natural Language Tool Kit, Heroku.*
Jun 2017 : Programmed a bot (reddit.com/u/haikubot-1911) that detects haikus in Reddit comments.
: The most rated bot on Reddit according to goodbot-badbot.herokuapp.com.
: Gained 200,000+ Karma in 30 days (with 400,000+ Karma at deactivation)
: Received Reddit Gold 11 times over two months.
- 2048 Solver** : *JavaScript, C, Python*
Nov 2016 : Used tree search optimization to find solutions to the game 2048.
: Beat the game 90%+ of the time using 0.5 second per move on average.
: Scored an average of 35,500 and a maximum of over 100,000 while the winning score approximately 22,000.