Will Wright, PhD

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Profile

Programmer and mathematician with 4 years experience in machine learning and statistical modeling. Developed and directed projects in predictive modeling, pattern recognition, and signal denoising. Enjoys self-learning and deep dives to understand high- and low-level details. Seeking a lead role in a dynamic environment to collaborate across teams and deliver value-drive results.

Highlights

- End-to-end algorithm design
- Pattern recognition, classification
- Data analysis / visualization
- Production-level code
- Leadership, collaboration
- Tech industry experience

Professional Experience

Researcher and Software Engineer (Co-op) - Apple 2016

- Prototyped ML algorithms to inform the direction of an autonomous systems project
  - Lead cross-team project to determine best method for predictive model problem
  - Performed fast, iterative algorithm testing on distributed data sets
  - Delivered report and presentation summarizing findings, directing team
- Developed production-level C++ code for group-wide core library
  - Collaborated across teams to identify needs and integrate codebase
  - Developed and tested performance critical code for embedded systems project

Assistant Instructor - CSU, East Bay 2011 - 2013

Middle School Teacher - Academy of Alameda, Alameda CA 2010 - 2011

High School Teacher - Delta Academy, Antioch CA 2009 - 2010

Selected Projects

Pattern Recognition - Image Segmentation

- Developed end-to-end software package to partition images into meaningful subregions
- Created faster algorithm, decreased runtime by 80-95% for large images

Signal / Image Recovery and Denoising - X-ray / Microscopy

- Created data visualization strategy to optimize algorithm, decreased runtime by 50-90%
- Showed our algorithm is better at denoising than other algorithms (wflow, HIO)

Statistical modeling - LASSO Regularization

- Developed new algorithm which scales better than built-in MATLAB software

Education

PhD Mathematics - University of California, Davis 2019

- Dissertation: An Improved Descent Method for Noisy Phase Retrieval
- Coursework in mathematical foundations of machine learning and data science

MS Applied Math - CSU, East Bay 2013

- Tracewell Scholarship (2012), Sabharwal Scholarship (2011)

MA Teaching - Concordia University, Portland OR 2009

BS Political Science and Philosophy - Penn State 2006

Key Skills

- Python, C++, MATLAB, Git, Gerrit
- ML / DL modeling and tools
- Code review, validation, unit testing
- Research, technical writing

Interests

Running, brewing beer, hiking, yoga, weight lifting, guitar, audiobooks and podcasts