Kyle R. Taylor

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Education

Graduate Student in Electrical Engineering 2010-Present
Second year PhD Student with a focus on Machine Learning
University of Iowa

B.S. Electrical Engineering 2005-2009
Minor in Computer Science
University of Iowa

Course Highlights

High Performance Computer Architecture
Knowledge Discovery
Graph Algorithms & Combinatorial Optimization
C.S. Topics: OpenMP and CUDA
Operating Systems

Research Projects

AudioGene: Prioritization of Genes for Screening

AudioGene is a tool for doctors to prioritize genes to be screened in patients with a certain form of genetic hearing loss.

Uses a supervised machine learning approach for prioritization.

Created a website for AudioGene that interfaced with our cluster of computers to perform the analysis.

IRV: An iPad app for Ophthalmologist

Developed an iPad app to allow Ophthalmologist to view high resolution retinal images and scanned patient information.

Used open source software to reverse engineer the iOS mobile device framework in order to create a Mac app that syncs encrypted patient data to an iPad, bypassing iTunes.

Currently being used on a daily basis by doctors, residents and fellows at the University of Iowa Hospitals and Clinics.

Other Experiences

Summer Intern Summer 2011
Lyrical Labs

Implemented state of the art object recognition algorithm to identify objects in images.

Modified OpenCV in order to extend functionality of their support vector machine implementation to handle custom kernels.

Designed the architecture from the ground up.

Research Assistant Summer 2008
University of Southern California

Worked in the Human Interactions Lab

Project involved working on methods to synchronize human speech with their humanoid robot's mechanical lips.

Modified drivers for their Open Source software project Player/Stage to make them better interface with the lip movement

Awards

Best undergrad poster in Center for the Research Open House	2009
1st Place in State Farm programming contest	2008
2nd Place in the Iowa ACM A.I. Competition	2007