Tomas McCandless

email: tomas.mccandless@gmail.com, **phone:** (210) 232-1477
github: tomnis

EDUCATION

Master of Science, Computer Science
Bachelor of Science, Computer Science, *Bachelor of Arts,* Philosophy
University of Texas at Austin. GPA: 3.67 CS GPA: 3.73

TECHNICAL SKILLS

Fluent: Scala, Java, gradle, git, teamcity, JUnit, Matlab, Python, MySQL, Linux/Unix
Familiar: InfluxDB, grafana, aws, C/C++, Ruby, LISP, Haskell, Prolog, LaTeX, gwt, JavaCC, libsvm

SELECTED PAPERS

Object-Centric Spatio-Temporal Pyramids for Egocentric Activity Recognition

- British Machine Vision Conference, 2013
- Multi-resolution histograms of detected objects used as feature vectors
- Boosting and SVMs for classification of first-person video

Linear vs. Hierarchical Segmentation of Egocentric Video

- Partition hours of first-person video into events
- k-means clustering with temporal constraints (tck-means)
- Prototype UI for fast video browsing based on linear or hierarchical segmentation

EXPERIENCE

Software Engineer III, Workday Summer 2013, August 2014 - present

- Technical lead for intern project (data visualization, clustering algorithms)
- WARP, a scala framework for automated performance regression testing
- JUnit code generator, scala DSL to eliminate boilerplate
- JMX bean for sampling heap histograms
- Conducted performance evaluation of backend technologies for new products.
- Researched and deployed a distributed, scalable system for collecting and visualizing performance metrics (openTSDB)

Lead Backend Engineer, TasteBud 2013 - July 2014

- Design and implementation of main backend functionality (node.js), bidding algorithms (flask)
- Manage server deployment on AWS

Research Assistant, McCombs Business School, UT Austin Spring 2014

- Used facebook API to collect time series data on likes of products

Research Assistant, Computational Visualization Center, UT Austin Spring 2013

- TexMol, a software package used for computational drug discovery.
- Developed a method for scoring strength of molecular bonds.

Undergraduate Assistant, Dept. of Computer Science, UT Austin 2010-2011

- Assisted students with designing and debugging algorithms, graded exams.

SELECTED COURSEWORK

Graduate:
Parallel Algorithms, Machine Learning, Programming Languages, Formal Semantics
Undergraduate:
Computer Vision, Information Retrieval, Operating Systems, Algorithms, Artificial Intelligence, Computer Graphics, Computational Linguistics, Programming for Correctness, Probability, Number Theory