ANDREW HANNEBRINK

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Bay Area based software developer with four years experience in object-oriented design, full-stack web development, and image processing. Creative problem solver that loves new technology.

SKILLS

Languages and Frameworks: Python, Javascript (Node, Angular, Express), C++, PostgreSQL, MySQL, MongoDB, HTML, CSS, AJAX, PHP, Django, Rails, Python Imaging Library, OpenGL, Java, Ruby, Bash, SAS, MATLAB, R
Environments: Ubuntu, OSX, AWS (EC2, Route-53), Docker, VirtualBox, VMware, VIM, Eclipse, Visual Studio
Other: Algorithms, RESTful services, 3-D object scripting, parallel processing, statistical analysis

PROFESIONAL EXPERIENCE

Twin Prime (Redwood City, CA)   July 2014 – June 2015
Software Developer
  -Built a web dashboard in a team of three, which provided our customers a way to explore how much faster our software made their mobile apps.
  -Developed API for new customer dashboard account activation, sign-in, sign-out, and password recovery. Used Django and Django Rest Framework. Built Angular controllers and services for API communication. Users verified with CSRF tokens, session cookies, and email confirmations when appropriate.
  -Created API endpoints for supplying D3.js chart data, which dynamically built SQL queries allowing users to filter data by time interval, device type, network type, status codes, region, and app (for customers with multiple apps).
  -Wrote an internally used Python script for reporting and tracking daily and all-time customer statistics. Queried from MongoDB and SQL databases.

Washington University in St. Louis IS&T (St. Louis, MO)   Summer 2013 – July 2014
Assistant UNIX Systems Administrator (with a focus on software development)
  -Developed a fully automated Python/MySQL software system for parsing daily Infoblox DHCP log files with complex syntax, recording client info and ACK events with a relational database, dynamically searching that database, deleting outdated records, and extending captive portal leases according to last log in time using RESTful web services.
  -Wrote server-side scripts for monitoring, recording, and searching when and where any user is logged into an on-campus access point (Cisco or Meru), using Python, crontab, and a relational SQLite3 database.

PERSONAL PROJECTS

Photo-Mosaic Video Generator and API   April 2014 - Present
  -Wrote Python command line software for re-editing mp4s as photo-mosaic videos (vimeo.com/tinyicon). Used ffmpeg and Python's PIL module for automating individual frame editing processes.
(github.com/andrewhannebrink/photo-mosaic-video-generator)
  -Created numerical tab-based mark-up language for dynamically defining input videos, mosaic element size, and color gradient changes at specific intervals and speeds throughout the output video.
  -Created website (tinyicon.co) with interactive front-end where users can upload photos, and make their own photo-mosaic images. Used Node, Express, Angular, and MongoDB.
  -Govern Twitter bot (@tiny_peon) who sends back an emoji photo-mosaic version of each image tweeted to it. Used npm's Twit module. Rate-limited tweets as to not get banned, and queued tweets in Mongo for delayed reply when busy.

C++ Facial Recognition Using the Eigenfaces Method   Fall 2013
  -Computed the average face and constructed a covariance matrix from a database of gray-scale faces reduced to vectors, where each vector entry corresponded to the intensity of a pixel.
  -Computed the top k eigenvectors of this covariance matrix, and projected novel faces onto the subspace spanned by these eigenvectors. Given the error between the resulting vector and the novel face, achieved results such as finding the locations of faces in large images, and identifying if two face images are of the same person.

EDUCATION

Washington University in St. Louis   St. Louis, MO
Bachelor of Arts, December 2013
Double Major: Computer Science, Math (Statistics and Probability Focus)
GPA: Computer Science (3.23), Math (3.47), Overall (3.18)
Lechon Restaurant   (Portland, OR)   *Dishwasher*   -Built character.   August 2015