

Nathan Pucheril

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Education

University of California, Berkeley

B.S. Engineering - Electrical Engineering and Computer Science | GPA: 3.4

2014–2017

Experience

Metrological Group

Software Engineer Zero-Hr

Aug '16 - Present

- Refactoring Test Suite to host on CDN and developing a Client-Server communication agent for Testing as a Service-esque product (Used internally and by clients e.g. Liberty Global/ Comcast/ Time Warner for Set-Top Box Testing).
- Leading design and development of new feature (planning stage): ML Recommendation Engine for TV(STB) App Store

Software Engineering Intern

May '16–Aug '16

- Developed a Test Suite based on Netflix Testing Suite in Node.js and ExpressJS.
 - **Features:** Scheduling, Auto Test Deployment over LAN, Dashboard, Admin Panel, History, Device Dial Discovery with Dial Protocol, etc
- Work with Raspberry Pi's to test WebRTC and WebKit functionality for WebKit Pure Embedded (an embedded browser)

UC Berkeley

Developer and Research Assistant, Design for Nanomanufacturing Lab (See Projects)

May '15–Present

Lab Assistant CS61C, (Machine Structures)

Aug '15–Dec '15

Reader/Tutor, CS70 (Discrete Mathematics and Probability Theory)

Jan '16–May '16

Research

Research Assistant

Distributed Deep Learning with Random Forests, W/ Prof. John Canny

Sept '16–Present

Projects *See Personal Site for more (www.nathanpucheril.com)*

Exam Search: Exam Scraper for Berkeley Engineering Courses

Initial Release: <https://calexam.herokuapp.com/>. Designed and implemented crawler/scrapper web app in Python's flask that consolidates exams into one database site. In Progress (Add more schools and improve UI)

Droplet Analysis: Condensation Analysis in MATLAB

Developed utility that analyzes droplet condensation video. Applied Adaptive Thresholding and Centroid Location to collect, log, and report droplet data *Work Presented @ Singapore Sinberbest, expanding use to other universities.*

Wind Tunnel: Wind Tunnel Control Utilities

Developed Matlab utility that provides UI for Control of Temperature, Humidity and Pressure in a Wind Tunnel. Provides live data requisition, graphing, and logging, and interfaces with Arduino. Papers in progress.

PyExpressions: Python Mathematical Expressions Library for symbolic manipulation

Other: *Chrome Ext.: Personal Dashboard, Gitlet Local VCS (Java/61B), Scheme Interpreter (Python/61A)*

Technical Skills *(Proficiency Out of 5)*

Python 4.5

JS 3

Java 3.5

HTML 3

CSS 3

LaTeX 4

C 2

C# 1

MIPS 1