**Adam Chu’s Computer Science Projects**

I can’t upload work computer science projects unfortunately, so I’ll list their contents here, along with the contents of some personal projects.

**Outside Projects**

SpringBoard, a 6 month career prep Machine Learning Engineering Track program

* Final project on pedestrian detection using Computer Vision, CNNs, and OpenCV
* Mini Projects in every chapter of the course – will upload
* Day projects with other students in SpringBoard on a variety of topics like LDA Topic Modeling, logistic regression, etc.

College Years (2011-2013)

* Day projects at hackathons and with friends in dorm rooms and at meet ups like Houston Ruby Group and Boston Ruby Group

**777 Partners Portfolio Companies**

ZocaLoans

* Naïve bayes classifier to calculate probabilities of customers making payments on their loans
* Use Spark and tf-idf to text mine debit card statement data
* Implement speech to text trial technoilogies through Google, Microsoft, Amazon, and Nuance Technologies ML as a Services
* Use SAS to generate a Returns report on consumer loans to give to executives weekly
* Automation processes
* Selenium automation to save other employees’ time
* Lots of data cleaning (XML, data warehouse)

Air Black Box

* Used Kibana and the Elastic Stack to deliver reports and visuals
* Improved the back end of ElasticSearch through tuning
* Developed a web scraping system to scrape info. from SkyScanner using Dexi.io’s tool

and other sophisticated means not mentioned

ProCap

* Use machine learning on commercial auto data to project future liabilities for insurer
* Data cleaning, feature engineering, ML model evaluation
* Use nltk and nlp concepts to design initial concept for tool predicting court claims
* Wrote program with pyTesseract and Python for OCR and ICR for PDF scraping of documents related to above bullet point
* Created a stochastic simulation program to supplement ML model in bullet point 1

Insurety

* Automated Excel spreadsheets with complex formulas using Python, PyOdbc, TKinter
* Ran SQL for information obtainment
* Implemented Levenshtein distance formula for a search assignment

LifeCents

* Worked in C#/.NET to improve back end of financial wellness website
* Completed data science projects on user engagement
* Added features to the website around leaderboard displays, auto clicking buttons, creating lookup tables, and creating a tool to export information on users

LifeBanq

* Owned quant model in Excel to price the secondary purchase of life insurance policies
* Worked with actuaries to refine the mortality and longevity segments of the model

**Outside of Work**

Java – one year of Advanced Placement Computer Science in high school plus minor projects thereafter; largest projects included Pong game, another game involving Turtle graphics, and final project

Ruby on Rails – built a College Craigslist prototype during college; contains front and back ends and API integrations  
VB.NET – World War 1 Simulation for high school history class and through a summer program at University of Houston before high school freshman year

Excel/VBA – projects done in summer 2012 internship at the RiverRock Group and while in fundamental finance jobs at BNP Paribas and 777 Partners’ Private Equity team

STATA – projects done in Harvard’s economic (several) classes

Mathematica – projects done in Harvard’s multivariable Math 21a class