Artur Kashperskiy

BS Computer Science at University of Washington ‘2021

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Summary

Computer science student with previous engineering internship experience looking to broaden knowledge of data science and machine learning algorithms

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Experience

Software Engineer Intern
Minted
Jun 2016 – Aug 2016
San Francisco, California

Summary: stack of a large Flask monolith with business logic and queries written in Python with SQLAlchemy (backend db: MySQL). I worked on address validation on the client side to help reduce costs to Minted. I also worked on an analytics dashboard (frontend/backend) to induce productivity onto company-hired designers that verified customer designs. I also worked to implement A/B testing to help the marketing sector of the company make better marketing decisions and test them as well. Any front-end work was done with react-redux methodology and all backend application work was done in python.

Technologies: Python, MySQL, React-Redux JS, deployment tools: vagrant, AWS, Rackspace

Quantitative Finance Research Intern
Nipun Capital
Jun 2017 – Sept 2017
Foster City, California

I helped develop a new deployment system for dependency management because the company was using an ancient python 2.7 installation with terrible dependency management (ran into a lot of errors). The new deployment system featured auto-deployment scripts and auto-dependency management and moved the python version to 3.6 which was much needed for some machine learning libraries. The company had me do a lot of web-scraping work to pull signal data from financial sites based in China. One of these jobs required me to break a captcha which I successfully did using Keras. Other projects included sentiment analysis on conference calls to help introduce signal on those companies.

Technologies Used: Python data science stack including pandas, Theano, Keras, and numpy

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Projects

uw-rso-directory (https://github.com/sm5art/uw-rso-directory **):**

- For this project, I was inspired to write a better service to discover new clubs at my university because the service that existed was a 200 page online manual of clubs (couldn’t find any clubs that resonated).

- I web-scraped all the data from the manual and placed it in a UI where you can search using text query or sort them by types of club (academic/sports etc), which used infinite scroll methodology instead of page by page search.
- Demo at https://uwrsodirectory.herokuapp.com/
- Technologies used: webpack, Javascript, react, redux, express (web server), MongoDB

genetic pong (https://github.com/sm5art/genetic-pong):

- This project is an application of evolutionary theory to convergence of a solution. This repository contains a game which learns to play pong unsupervised through simulation of evolution.
- Training demo at https://www.youtube.com/watch?v=mFOKdGye7vY
- Note: this is a collaboration project: my friend Sarthak from UW wrote the game/ game engine portion of the project, I wrote the AI on top.
- Technologies used: Python (numpy + pandas + pygame and nothing else)

kernel (https://github.com/sm5art/kernel):

- This project is a basic i386 kernel built using many operating systems resources that I've found on Wikipedia and operating system developer forums. It features basic graphical capabilities, a GDT code descriptor table, an interrupt table with handlers, basic CPU clock, and some system methods shared by these components.
- Technologies used: C, Makefile, gcc, nasm, ld, qemu-system-i386 for emulation

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Professional Skills

Python, JavaScript, Tornado, Express, Java, React, Machine Learning, MongoDB, MySQL, SQLAlchemy, Django, Bottle, Flask, Calculus, Physics, C/C++, Node.js, Gulp, Webpack, Puppet, Vagrant, AWS, Rackspace, Numpy, Theano, Tensorflow, Keras, Intel syntax Assembly, Pandas, Webservers (nginx), Deployment, Docker, postgres, Go

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Education

Approaching BS Computer Science at University of Washington, Seattle, WA '2021, GPA: 3.4

Classes: Calculus 3, Linear/Matrix Algebra, Numerical Analysis, Mechanics, Data Structures I, Differential Equations, Vector Calculus, Intro to Complex Analysis, Statistics

California High School (Graduated 2017) UW GPA: 3.7, W GPA: 4.2
Important Classes: Calculus 1, Calculus 2, Physics 1 and Physics 2, Computer Science 101 (Java)
