Champaign, Illinois
Software Developer
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JEAN-PAUL WILSON

Python developer with 8 years experience, proficient at designing, building and deploying web applications (Flask, SQLAlchemy); building data pipelines and carrying out statistical and numerical analysis for operational improvement.

Advanced: Python + related frameworks, tools & libs (Linux, RelDBs, ORMs, Data Analysis, VC(git), TDD, DevOPs)

Intermediate: ES6|HTML5|CSS3, Node + related frameworks, tools & libs (FlexBox, Sass, React, FireBase)

Projects

Recently Built Web App   Site | Repo   *2018*
- A web app where anyone can add lists of anything they want; OAuth2 to CUD; Postgres DB; SQLAlchemy ORM with Flask framework; running on Ubuntu instance and Apache2 Server, deployed to AWS EC2.
- 100% functional, but current focus is on UI. Built as part of solo application to YCombinator.

Vehicle & Lane Detection via Dashcam   *2017*
- Built a model that detects and tracks other vehicles from dashcam footage.   Video | Notebook
- Made use of OpenCV & other python libraries to detect lane lines in dashcam footage.   Video | Repo

Deep Learning (CNN) for self driving car   Video | Report & Repo   *2017*
- Behavioral Cloning - Keras Model for self driving agent implemented in Unity.

Work History

Contractor, Python Developer   *Champaign, IL (remote) | July 2017 – present*
- Wrangling, processing, analysing & interpreting data from telemetry systems on Solar PV plant, building data pipelines, ending w/ ML (img clsfr) & presentation (Tableau) to stakeholders.
- Consulting on previously built dbs and web apps.

Eskom Holdings, Senior Analyst & Developer   *Johannesburg | April 2014 – June 2017*
- Built and maintained web apps (Flask) for research (solar, UCG (underground coal gasification), water treatment) departments. Network and sysadmin functions - configuring VMs (Ubuntu), servers, connecting to dbs, adding users, etc.
- Built several data pipelines for several research projects.
- Mgmt & finance: Member of team completing business case for $1bn Commercial Phase of UCG. Managed 8 mech, chem & elec engineers.

Eskom Holdings, Analyst & Developer   *Johannesburg | March 2013 – March 2014*
- Several data analysis projects (req. gathering, ETL, modelling) improving operational costs & eff.. Output of these projects: research reports & presentations to executives. (numpy, scipy, MATLAB, TensorFlow).
- Migrated Postgres to HDFS as part of data integrity program.
- Built & maintained Django web app for dept. info sharing/ blog.

Eskom Holdings, Mechanical Design Engineer   *Johannesburg | January 2008 – February 2013*
- Implemented drilling analysis program (forms in excel, VBA, later TkInter) saving ~20 man-hours/ day.
- Mech Eng: Design, construction, commissioning gas & water treatment plant. | Designed wellhead isolation system saving ~$5m in operating equipment. | Redesigned condensate removal, reducing blockages by 30%. | Pipe stress analysis with CAESAR. Other eng software (SOLIDWORKS, CADWorx, Smartplant 3D).

Education

Udacity Self Driving Car Engineer & Machine Learning Foundations Nanodegrees   *2018*
Udacity Full Stack Web Developer Nanodegree   *2016*
University of the Witwatersrand, *MSc Engineering (Mechanical)*   *2014*
University of the Witwatersrand, *BSc Engineering (Mechanical)*   *2008*

Volunteering

- Beta Tester for a top-five MOOC's upcoming blockchain curriculum.