
Python developer with 7 years experience in all phases of SDLC. Proficient at designing, building and deploying web applications (Flask, Django); building data pipelines and carrying out statistical and numerical analysis for operational improvement. Experienced project manager. Willing and excited to learn new tools & technologies.

Projects

- Recently Built Django App** [Site](#) 2019
- Ad-free news app where anyone can create an account and write news articles & get paid by subscribers. Can sign in as a user and subscribe to news channels for \$0.50/ channel/ month. Django app on Ubuntu instance and Apache2 Server, deployed to AWS EC2 with Lambda scripts for stripe payments.
- Recently Built Flask App** [Site](#) | [Repo](#) 2018
- A web app where anyone can add lists of anything they want; OAuth2 to CUD; PostgreSQL; SQLAlchemy ORM with Flask framework; running on Ubuntu instance and Apache2 Server, deployed to AWS EC2.
- 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.
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Work History

- Contractor, Python Developer** *Champaign, IL (remote) | July 2017 – present*
- Wrangling, processing, analysing & interpreting data from telemetry systems on Solar PV plant, building jupyter pipelines, ending w/ ML (img clsfr) & presentation (Tableau) to stakeholders.
 - Developed business logic for new web application;
 - Contribute to 'build, test and deploy' cycle in Agile team.
- Eskom Holdings, Senior Analyst & Developer** *Johannesburg | April 2014 – June 2017*
- Built, deployed and maintained web apps (Flask) for research (solar, UCG (underground coal gasification), water treatment) departments; AWS deployment; Network and sysadmin functions: configuring (Ubuntu) VMs, servers, connecting to dbs, adding users, etc.
 - Created REST API services for some of applications above.
 - 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 using Python libs, improving operational costs & efficiency.
 - Developed scripts to migrate data to PostgreSQL.
 - Developed views and templates for Django application to allow for analysis and report creation.
- 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).
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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
- COMMUNITY:** Mentor for 14 Udacity students, holding weekly Webinars, 1:1 coaching and Slack AMAs