

# Himanshu Singh

Senior Backend Engineer, 6+ years experience



**Address:** Quarte Bornes, Mauritius

**Mobile:** +230 59074325,

**Skype:** himanshu.p.singh.hps@gmail.com

**Email:** [himanshu.p.singh.hps@gmail.com](mailto:himanshu.p.singh.hps@gmail.com)

**Github profile:** <https://github.com/tek-shinobi/>

**Blog:** <http://tekshinobi.com/>

**PyPi profile:** <https://pypi.org/user/tek.shinobi/>

**Linkedin:** <https://www.linkedin.com/in/himanshu-singh-756316188/>

## BRIEF OVERVIEW

Solid experience in Django and Flask web application development.

Solid Experience in SQLAlchemy and DjangoORM with PostgreSQL backend

Solid experience in Test Driven Development using unittest and Pytest frameworks.

Open source contributor, with 2 open source PyPi packages

Solid experience in doing web based financial application development for retail industry

Extensive experience in doing web application development for web-agencies

Exposure to Retail Data analysis using Python data science stack (Python, Sklearn, keras, numpy, pandas, seaborn) and SQL backend

Bug Tracking: JIRA

Past experience in .NET tech stack (.NET MVC, SQL-Server, Entity Framework, T-SQL, Windows Forms)

Focused, motivated and self-driven.

## PROFESSIONAL SUMMARY

### Skill Set:

Frameworks & Languages:

Excellent knowledge of Python, Django, Flask

Excellent knowledge of REST API development using Django Rest Framework

Excellent Knowledge of Test Driven development using Unittest, Pytest

Excellent knowledge of DjangoORM, SQLAlchemy

Excellent knowledge of SQL (PostgreSQL)

Experience in asynchronous task implementation using Celery, Redis and RabbitMQ

Experienced with Wagtail CMS

Exposure to Python stack for data science in Numpy, pandas, supervised Machine learning using Sklearn, Keras (Tensorflow backend)  
Excellent Knowledge of MVC server-side development in ASP.NET MVC C#  
Excellent knowledge of .NET Entity Framework, Linq, T-SQL  
Excellent knowledge of C# Restful API development in .NET Web API2  
Continuous Deployment using TravisCI  
Version Control: Git, SVN  
Unix/Linux Shell scripting  
IDE: Pycharm, Visual Studio, Jupyter Notebook, Spyder  
Server Tools: IIS, Apache  
Database Tools: SQL Server Management Studio

Operating Systems: Windows, MacOS, Linux  
Certificates: Inferential Statistical Analysis With Python (Univ of Michigan)

---

## PROJECTS HANDLED

---

### **Project Name: Asynchronous background processing system**

Organization: GES S.A. Greece

Duration: April 2020 – Present

Role: Senior Software Engineer (**freelance remote work**)

Platform: Flask , SQL-Alchemy, Python, PostgreSQL, unittest, lxml parser

Project Description:

- Developed asynchronous XML feed processing system with xml feeds consumed from a Flask API endpoint
- Used Python threading with queue
- Test Driven development using unittest
- PostgreSQL + SQLAlchemy backend

### **Project Name: Web Based Point of Sale and Inventory system for Acceo**

Organization: GES S.A. Greece

Duration: September 2019 – March 2020

Role: Senior Software Engineer (**freelance remote work**)

Platform: Django , Django Rest Framework, Python, SQL, Django Forms, Pytest, TravisCI, Celery, RabbitMQ, Redis, PostgreSQL, HTML, Javascript

Project Description:

- Developing Point of sale for merchants in Django Rest Framework
- Inventory Management in Django Rest Framework
- Test Driven development using Pytest, Factoryboy
- Database was implemented using combination of DjangoORM and PostgreSQL
- Celery, RabbitMQ and Redis were used for async task scheduling and delayed job execution
- Bug Tracking tool: JIRA

### **Project Name: Milka Austria Promotional Website Development**

Organization: Proximity BBDO

Duration: October – December 2019

Role: Senior Web Developer

Platform: Django , Python, MS SQL, Django Forms, Celery, Redis, SQL Server Management Studio, HTML, Javascript

Project Description:

- Developed Football Bundesliga promotional website for Milka Austria.
- Login functionality was implemented using Consultix APIs

- The backend was developed using Django
- Database was implemented using combination of DjangoORM and T-SQL stored procedures
- Celery, Redis were used for async task scheduling and delayed job execution
- Responsible for all integration of front-end, google analytics, deployment to staging and production
- Bug Tracking tool: JIRA

**Project Name: Cadbury UK Promotional Website Development**

Organization: Proximity BBDO

Duration: June – October 2019

Role: Senior Web Developer

Platform: Django, Python, Django ORM, SQL Server Management Studio, Google Geocoding Client, Django Forms, HTML, Javascript

Project Description:

- Developed promotional website for Cadbury UK titled “Freddo’s Big Adventure”.
- Developed reusable Geocoding library using google’s Geocoding client, offering functionalities like search based on postcode, calculating distance from current post-code
- Login functionality was implemented using Consultix APIs
- The backend was developed using Django
- Database was implemented using combination of DjangoORM and T-SQL stored procedures
- Celery, Redis were used for async task scheduling and delayed job execution
- Responsible for all integration of front-end, google analytics, deployment to staging and production
- Bug Tracking tool: JIRA

**Project Name: LU Prince Promotional Website Development**

Organization: Proximity BBDO

Duration: February – June 2019

Role: Senior Web Developer

Platform: Django, Python, Django ORM, Django Rest Framework, SQL Server Management Studio, Google Geocoding Client, Django Forms, HTML, Javascript

Project Description:

- Developed promotional website for LU Prince campaign called Prince-Collector.
- Back-End was Django Rest Framework and Front-end was ReactJS
- Designed the whole back-end from scratch, from Database schema development to RESTful WebAPI services
- Login functionality was implemented using Consultix APIs
- The backend was developed using Django
- Database was implemented using combination of DjangoORM and T-SQL stored procedures
- Celery and Redis were used for async task scheduling and delayed job execution
- Responsible for all integration of front-end, google analytics, deployment to staging and production
- Bug Tracking tool: JIRA

**Project Name: Cadbury (UK) Easter Promotional Website Development**

Organization: Proximity BBDO

Duration: November 2018-February 2019

Role: Senior Web Developer

Platform: Django, Python, Wagtail CMS, Django ORM, SQL Server Management Studio, Google Geocoding Client, Django Forms, HTML, Javascript

Project Description:

- Developed promotional website for Cadbury (UK) for Easter.
- Development was done using Wagtail CMS
- Used Google Geocoding client for postcode lookup and distance calculations
- Database was implemented using combination of DjangoORM and T-SQL stored procedures
- Responsible for all integration of front-end, google analytics, deployment to staging and production

- Bug Tracking tool: JIRA

**Project Name: Retail Data Analysis for Winners Retail stores**

Organization: Proximity BBDO

Duration: September 2018 – November 2018

Role: Senior Web Developer

Platform: Windows, Python (with Anaconda stack), Sklearn, Keras, pandas, Numpy, seaborn, matplotlib, .NET Windows Forms, SQL Server, C#

Project Description:

- Created Utility tools to mine data from SQL Server, format and export as csv
- Created Utility tools to process customer receipts, format and export as csv
- Data cleanup and data preparation for analysis
- Data regression models for unproductive inventory
- Sales Estimation models for different departments
- Statistical analysis of sales and inventory data
- Loyalty program member customer behavior analysis
- Weekly report generation for sales, inventory

**Project Name: Loyalty Program implementation for Winners Retail**

Organization: Proximity BBDO

Duration: June 2018 – September 2018

Role: Senior Web Developer

Platform: .NET Windows Forms, Http Client, C#, Amazon AWS

Project Description:

- Winners Wiiv customer loyalty program implementation
- Integration of loyalty card with Point Of Sale cash register
- Performing purchases via loyalty card implementation using Web APIs from Loyalty Prime
- Customer ticket processing for generating customer loyalty points
- Automated uploads of processed customer receipt data to Amazon AWS

**Project Name: Expat Partners**

Organization: Proximity BBDO

Duration: June 2017 – June 2018

Role: Fullstack Developer

Platform: .NET MVC, C#, Razor, Entity Framework, Web API, SQL Server Management Studio, IIS, Web Forms, HTML, Javascript

Project Description:

- Added sponsor interaction module where sponsors could create and ad campaign on the site.
- Added new blogger module for logged in users using .NET MVC. Earlier one was based on webforms and was a legacy module.
- Added .NET MVC app that creates various travel related products, like health insurance quotes, currency conversion quotes for customers registered with Expat.com.

**Project Name: Middlesex University Website Vue.js app**

Organization: Middlesex University, Mauritius

Duration: June 2016 – June 2017

Role: Spearhead development of the new UI frontend. Lead developer. Mentored seven graduate students over the course of this project.

Project Description:

- Constructed a powerful modern frontend UI with Vue.js and ES2015 (ES6). Directly worked with graphic designers, stakeholders to come up with a mock-up. Then used that as requirement spec for the UI development.
- Bootstrap 3 was used to customize the look
- JWT token based authentication/authorization for accessing back-end
- Testing: Mocha

**Project Name: RESTful API server development:**

Organization: Middlesex University, Mauritius

Duration: November 2016- June 2017

Role: Lead developer. Mentored seven graduate students over the course of this project.

Project Description: Implemented C# .NET Web API RESTful API server. This is the back end for internal Middlesex University website. It will replace the current internal website. It will host all the departments on the Middlesex University's Malta, Dubai, Mauritius campuses. The development cycle involved creation of API spec based on stakeholder's inputs, API documentation, API development and testing.

Development Platform: Visual Studio

Languages: C#, T- SQL, Entity Framework, LINQ

Server Web frameworks: .NET Web API

REST API Authentication/Authorization: JWT Token based

**Project Name: Hospital Management System for Mauritius Ministry of Health**

Organization: Middlesex University

Duration: January 2016 - November 2016

Role: Lead Developer. Mentored three graduate students over the course of this project.

Project Description:

- This project was initiated at request of Ministry of Health (and with research grant from Ministry of Health).
- Back-end has .NET Web API using C# and T-SQL. Front-end built with Vue.js.
- Fully responsive design using Bootstrap. The app is used to manage patient processing in Hospitals.
- Keeps track of all patient records.
- Manages all patient data.
- Performs automated analytics on patient data like most common ailments different among age groups and mails the HTML based report them to stakeholders weekly.
- Created thorough documentation of UI and backend.
- UI and DB design was determined after a survey of two major public hospitals.
- Designed the survey to determine the UI and DB structure. Survey was conducted by graduate students.
- In production at two of the biggest Mauritius Public Hospitals

**Project Name: Automatic Irrigation system**

Organization: Middlesex University

Duration: January 2015 – December 2015

Team: 7. Split between Greece and Mauritius. I was the single point of contact for Mauritian team.

Role: Mauritius based lead developer. Mentored 3 graduate students.

Platform: Flask (Python), Python 3.\*, PostgreSQL as database, HTML, CSS and jQuery

Project Description:

- The project was part of joint EU and Ministry of Agriculture grant.
- Co-wrote the original proposal in July 2014 with Greek team.
- Implemented Flask micro-web-server on Raspberry Pi.
- Created software for aggregating and processing sensor data received by server.
- Designed an off the shelf set-top box for the Raspeberry-pi based server with a low-cost 5 inch display as monitor (in effect a very low-cost mobile server with monitor)
- Developed surveys for current use of web-based technologies in agriculture in Mauritius.

**Project Name: iOS and Android app for Middlesex University**

Organization: Middlesex University

Duration: July 2014– December 2014

Platform: iOS and Android.

Team: Lead developer. Mentored 2 graduate students.

Role: Ideated, Spec'ed, planned and executed the development.

Project Description:

- The app was designed to provide info about Middlesex University, Mauritius campus during admission of students in 2014/2015.
- It featured virtual campus tour and testimonials from past students.

**Project Name: Electrical Engineer at Hewlett Packard**

Organization: HP

Location: Bangalore - India

Duration: 2004 - 2014

Platform: Sun Solaris, HP-UX, C, Verilog.

Team: Senior Hardware Engineer and Team Lead

Role: Worked on various semiconductor ASICs for printers and scanners

---

## EDUCATION

---

**Master of Science in Electrical Engg (MSEE), University of Utah, Salt Lake City, USA**

**2001 – 2004**

GPA: 3.8/4.0

**Additional Certifications:**

**Inferential Statistical Analysis with Python:** University of Michigan

**Fitting Statistical Models to Data with Python:** University of Michigan

**Understanding and Visualizing Data with Python:** University of Michigan