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Summary

- **12+ years** of Python experience in end to end software product development.
- Full-stack web developer, specializing in **Python** stack (**Python**, **Django/Flask, SqlAlchemy**, **MySql, Postgresql, Celery**) and **MEAN** stack (**Mongodb**, **Express** and **Node.js**) and Frontend Technologies using **React.js** and **Redux** , **Jquery** .
- Deep knowledge in programming languages such as **Python, JavaScript**.
- Strong knowledge in distributed systems using **RabbitMq**, **ZeroMq**.
- Have hands on experience in developing **Node.js Add-on** development.
- Have hands on experience in developing **Python Extensions** using C/C++.
- Strong knowledge in developing Graphics and Visualization web applications using **Canvas, WebGL, D3.js,** JavaScript Graphics APIs.
- Extensive knowledge in using **Design Patterns** and best programming practices to design various level of software's in multiple domains such as Set Top Box IPTV, Financial/Trading, Office Automation, Aerospace, Supply Chain Management / Warehouse Management and Game Development.
- Insightful experience in software development activities such as preparing proposals, requirement collection and analysis, effort estimation, planning, preparing and delivering the product, resource administration and developing effective strategies for debugging and error correction.
- Fiercely passionate about user experience and interaction of a product.

Skill Set

Languages	Python, JavaScript, C++, Common Lisp
Back End	Python Django, Django REST API, Flask,Node.js, Express.js
Front End	React/Redux, Backbone, Jquery
Graphics	Canvas, WebGL, Three.js, D3.js
C++ Libraries	Qt 5, OpenGL, SDL, Boost
Database	Mongo DB, MySQL, SQLite, Postgresql, SqlAlchemy
Others	Git, SVN, Perforce, Mercurial
Distributed Sys	RabbitMq, ZeroMq, Celery

Educational Qualifications

Bachelor of Engineering (CSE) from Bharathiyar University, Coimbatore, India.

Project Profile
Technical Architect
JustbuyLive .com   **May 2016 - Current**

 Currently working as an Technical Architect developing Applications for Supply Chain management and Warehouse management.

- Architectured and successfully delivered Barcode Feature for Warehouse management within short time period of time.
- Responsible for improving performance and design of Database operations using **Python SqlAlchemy.** Conducted various performance strategies to improve database throughput.
- Developed Migration application for porting data from **MySql** to **Elasticsearch**.
- Developed Proof of Concept for Migrating Database from **Mysql** to **Postgresql**
- Created complete Backend solutions using **Python** and **google API** for HeatMap Analysis of Customer Location spread feature to Analytics Team.
- Created **AWS Lambda** function using **Python** PIL for Image size reduction for Responsive web pages.
- Created Software Development Process such as Unit Testing and Code Review from the scratch.
- Conducted Training for Team on SqlAlchemy, High Performance Python, Unit Testing using PyUnit and Code Review Process.

Platform   : Web
Team Size   : 16
Role   : Technical Architect
Technology   : Python, Django, SqlAlchemy, Django REST API, Celery, RabbitMq, PyUnit.
Boto3, Nginx.

Independent contractor
Dakshin Hospitals   **March 2015 – April 2016**

Worked as an Independent contractor developing a State of the Art Enterprise Patient Token Allocation System for Medium Size Hospital up to 800 Patient per day.

- Responsible for Design, developing and delivering Real-time and reactive Patient Token system.

- Developed Web socket based backend to update real-time status of the Patients across multiple departments.
- Created **REST** API based Backend using **Python/Django REST , SqlAlchemy** for Backend system powered by **MySql** db**.**
- Created real-time UI with **React.js** for Multiple departments.
- Created Advanced dashboard based UI to monitor patient waiting time using **React/Redux** and **D3.js**.

Platform : Web
Team Size : 2
Role   : Independent contractor
Technology **: Python/Django, SqlAlchemy, RabbitMq, Celery, Node.js, React/Redux, Express.js, D3.js, Three.js.**

Senior Software Engineer

R Systems International Pvt Limited.   **Aug 2010 – Feb 2015**

WYPlay IPTV Solutions:

Independent and internationally recognized, WYPlay develops open, modular and innovative software solutions for IPTV, cable, satellite and terrestrial TV operators and broadcasters around the world.

- Responsible for Design and developing **REST API** based Backend for Set Top Box Applications using **Python.**
- Developed **Set Top Box UI** using **Backbone.js MVC** for Belgacom Boxes.
- Developed Set Top Box UI using Python/C++ for Sigma Based Boxes
- Developed **Python Extensions** using C++ for High-performance Middleware components.
- Developed Middleware Modules such as **Open Connection Interface (OCI), Digital TV (DTV) UI**.
- Tuned application performance using **Valgrind, Oprofile.**

Platform : Linux, Sh4 Linux
Team Size : 15 Members
Role   : Senior Software Engineer
Technology **: Python, Backbone.js, JavaScript, Qt**

Senior Software Engineer   **May 08 – July 10**

Aspire Systems Pvt Ltd.

Axis / Radius Pro:

AxisPro and Radius Pro is a professional custom online trading solution for active traders and features advanced order types, basket trading, charting and multi-account management in a real-time environment, combining powerful features such as advanced analytics, multi-instrument trading and account management into a single trading platform.

- Responsible for Customizing Applications specific for more than hundred Brokerage Firms such as Disnat 5, Trade Freedom, etc.

- Implemented Complex Options feature and various strategies for complex option.
- Developed custom UI Components using **Qt**.
- Designed and Developed Report a problem (RAP) module for Error reporting facilities on various modules.
- Developed Graphics Routines for Charting and Visualization using **OpenGL**
- Developed various tools in **Python, PyQt** for debugging and automating the Application.

Platform	: Linux, Windows
Team Size	: 15 Members
Role	: Project Lead / Senior Software Engineer.
Technology	: **Python, PyQt, Qt, OpenGL, Postgresql, MS SQL Server**

Independent / Freelance Developer   Apr 07 – Apr 08
RealSoundEngine

RealSoundEngine is a Component based product intends to be used in Video games to provide procedural Synthesizing and Surround Sound Capabilities.

- Developed various Real time Sound Synthesis technologies based on Physical model synthesis, subtractive synthesis, FM synthesis and Wavetable synthesis.
- Developed various Sound Effects Routines.
- Implemented Synthesis techniques such as Subtractive and Physical modeling and FM synthesis methods for VST (Virtual Sound Technology) plug-ins which can be used to generate data from Digital Audio Workstations such as FL Studio, Ableton Live.
- Developed Maya plugin to design audio properties which later can be used in game engine.
- Created OpenGL Based GUI for VST Plug-in using **Qt**

Platform	: Windows-XP, Vista
Team Size	: 4 Members
Technology	: **Qt, Python, OpenGL, DirectX, VST-Plugin API, C++.**

Lead Engineer
ETES (Enhanced Total Entertainment System)   Mar 04 – Feb 07
HCL Technologies

Worked on In-flight entertainment system named eTES (Enhanced Total Entertainment System). Worked on various features such as Head End Synchronization, Built in Testing, Seat Side GUI components.
- Designed and developed Components for synchronization between various Head end LRUs (Line Replacement Units) and various system components.

- Enhanced Device Drivers for various fault detection.
- Designed and developed components for interacting Device Drivers in order to report faults.
- Implemented Fault Tolerance Routines for eTES both Head end and Seats.
- Designed GUIs for various client Flights such as Qantas, Air New Zealand, Lufthansa, Air France etc.
- Enhanced and optimized Component Routines for speed.
- Designed and developed various Tools used for Database Configuration and System Verification.
- Developed various log analysis tools for various LRU components using Python.
- Guided offshore team by providing Help and support on debugging and optimization for eTES features.

Platform   : Windows, Linux
Team Size   : 200 Members
Role   : Lead Engineer.
Technology   **: Python, C++, OpenGL**

Software Engineer
Forms PRO   **Nov 02 – Feb 04**
Celtel-E-Labs Pvt Ltd

Forms PRO™ is a product developed in Celtel E Labs which is mainly used for automating forms processing. This product handles all aspects of manual forms processing. These products scan the forms using OCR (Optical Character Recognition) module. The reports are produced by any printable formats or in XML format.

- Participated in developing Analysis and Design Specifications
- Involved in GUI design for using **C++/Qt** for Forms Design Workflow.
- Developed Verification modules using Artificial Intelligence routines for Data Verification and Error checking Workflow.
- Created Packaging Routines in Installshield.
- Involved in testing and debugging.

Platform   : Windows-XP, Windows 2000
Team Size   : 7 Members
Role   : Software Engineer.
Technology   **: Qt, C++, Installshield, SQL Server**