

HEMANT PUTHRAN

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Opportunities most interested

GoLang
Embedded C
ARM, RTOS
Control Systems
Firmware development

Education

MTech. IIT-Bombay
Control and Computing
Dept. of Electrical Engg.
July 2011 - July 2014
GPA: 8.04

BTech.VNIT-Nagpur
Electrical Engineering
July 2006 - May 2010

Tools

Languages
C, Go, Javascript, PHP
Frameworks
ReactJS(16.2.0),
React-Redux, ReactPHP,
WordPress
Utilities
Git,Webpack
Technologies
Web-Sockets,
XMPP Protocol

Experience

Freelance : March 17 - present : Mumbai

Lead Developer : Asterisk Telephony Dashboard

- Solution provided for dashboard(ReactJS) and backend(ReactPHP)
- Filtering and publishing of Asterisk events generated by AMI and ARI to dashboard
- Event driven non-blocking I/O minimal webserver hosting the client and providing config and logging utility for admin
- Complete functionality out of file folder, facilitating easy non technical onsite installation of application, bash scripting to automatically revive application incase of crash

E2 Infosystems Private Limited : Oct. 15 - March 17 : Chennai

Lead Developer : Application Redesign and Rewrite

- Restructuring and Redesign with emphasis on separation of concerns, reusability, maintainence, feature extensibility of Java based hybrid web app on iOS
- Feature development in Javascript and native iOS, leveraging each's strengths for robustness and flexibility
- Designed primitive protocol and workflow for communication and synchronisation between the iOS logic layer and webapp interface
- Replaced various Java templating frameworks with ReactJS
- Enhanced development workflow and optimal production build generation using Webpack

Lead Developer : Web App

- Sole developer for client(AngularJS) and backend(Laravel)
- Chat feature over web-sockets leveraging XMPP protocol on OpenFire
- Implemented JWT(JSON Web Tokens) for verifying requests, maintaining user state and progress towards stateless backend
- Built engine to generate SOAP requests, regex XML and parse to JSON

Lead Developer : WordPress App

- Plugin and Theme Development to manage website data
- Developed rudimentary console to dynamically customize page layout and content, tightly integrated with WordPress API's
- Effective solution by removing maintainence of 1200 existing posts

Accelya Kale Solutions : iOS Developer : June 14 - Oct. 15 : Mumbai

- Functional enhancements and fixes to Finesse MBS, minor fixes to Audit MIS and iBrochures

IIT-Bombay : Research Assistant : July 11 - June 14 : Mumbai

- Designing new experiments and Lab incharge for Masters and Bachelors courses
- Taught and implemented control algorithms using Matlab, DAQ cards and Arduino

Enercon India Limited : Field Engineer : June 2010 - 11 : Saundatti, KA

- Electrical Supervisor designing connecting grid layout, coordinating installation of electric equipment, quality inspection and commissioning of windturbines

Academics

Masters Thesis : Polynomial matrix nullspace computation

- Implemented BlockQR and SVD on GPU using OpenCL and clAMDBLAS
- Block Toeplitz solution implemented in Scilab and in Python using Scipy and improved upon using Row Update QR

R & D project : Embedded Autonomous Quad-Copter Testbed

- Independently designed and built a Single Axis Test Platform and Thrust Measuring Stand to engineer the quad-copter and test Control algorithms
- Augmented ESC operation resulting in increased operating frequency and improved granularity in BLDC speed control

International Publication

International Deep Drawing Research Group Conference

Hemant Puthran, Sanket V. Joshi, K. Narasimhan, Forming Behavior of thin foils, p.p. 493-498, 2013, Zurich, Switzerland