

HEMANT PUTHRAN

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Career Interests

C, ARM, RTOS
Control Systems
Firmware development

Education

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

Bachelor of Technology
NIT-Nagpur
Electrical Engineering
July 2006 - May 2010
GPA: 6.61

Tools/Skills

Languages
C, JavaScript, PHP
Frameworks
ReactJS(16.2.0)
React-Redux, ReactPHP
WordPress
Utilities
Git, L^AT_EX, Webpack
Technologies
Web-Sockets
XMPP Protocol

Experience

Freelance : March 17 - present : [Mumbai](#)

Lead Developer : [Asterisk Telephony Dashboard](#)

- Solution provided for dashboard(ReactJS) and back end(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](#)

- Restructure 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 eachs strengths for robustness and flexibility
- Designed primitive protocol and workflow for communication and synchronization 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 back end(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 back end
- 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 and inbuilt functionality
- Effective solution by facilitating easy maintenance of more than 1200 existing webpages

Accelya Kale Solutions : [iOS Developer](#) : June 14 - Oct. 15 : [Mumbai](#)

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

IIT-Bombay : [Research Assistant](#) : July 11 - June 14 : [Mumbai](#)

- Designed 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, Karnataka](#)

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

Projects

Masters Thesis : [Polynomial matrix null space 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

Publication

[Forming Behavior of thin foils](#), p.p. 493-498, 2013, Zurich, Switzerland

[International Deep Drawing Research Group Conference](#)

Hemant Puthran, Sanket V. Joshi, K. Narasimhan