HEMANT PUTHRAN

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Career Interests

 $\begin{aligned} & \text{Go(golang)}, \\ & \text{Docker, Kubernetes,} \\ & \text{gRPC} \end{aligned}$

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

Go, JavaScript, PHP Frameworks

 $\begin{aligned} & \operatorname{ReactJS}(16.2.0) \\ & \operatorname{React-Redux}, \operatorname{ReactPHP} \\ & \operatorname{WordPress} \end{aligned}$

Utilities

Docker, Kubernetes, Git, LATEX, Webpack Technologies

 $\begin{array}{c} {\rm Web\text{-}Sockets} \\ {\rm XMPP\ Protocol} \end{array}$

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
- \bullet 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
- \bullet 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 verfiying 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

Accelva 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