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# ESHWARA PRASATH RAMESH

Raleigh, NC

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## Summary

A hands-on leader with over nine years of experience in the design, implementation, and management of connected systems. Practical experience with software development life cycle, design, cloud solutions and distributed systems. Architected and Implemented several large commercial and industrial IoT and software systems. Built and managed high-performance cross-functional teams. Passionate about technology and the continuous education required to master new architectures, frameworks, and patterns.

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## Skills

C, C++, Python, Shell scripting, X-Code, Angular2, Angular15, Unix/Linux, Windows, Raspbian, Xv6, JOS, Azure, QEMU, Arduino, GNU Auto tools, Pthreads Library, Agile, Git, MATLAB, Golang, Cloud Computing, PostgreSQL

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## Experience

### Atom Power Inc

Embedded Systems Architect • Charlotte, NC

03/2019 - 11/2023

- Experience working on **Level 2 AC electric vehicle chargers** for residential and commercial applications.
- Integrated chargers with management systems using **Open Charge Point Protocol (OCPP v1.6)**.
- Experience building and managing cross-functional teams in the software and embedded space.
- Experience working on **bootloaders, Embedded Linux, TCP/UDP protocols, CAN bus, modbus, UART and SPI protocols** for Atom Power circuit breakers.
- Experience writing firmware for **Texas Instruments 32 bit Piccolo Microcontrollers, ARM cortex A8 processors, E-ink displays** and debugging using **JTAG**
- Experience managing and writing firmware and software to comply Underwriters Laboratory (UL) standards **UL 489 SE, UL 489, UL 67, UL 2594**
- Architected **programmable solid state circuit breaker project, demand management** for residential and commercial buildings, **automatic transfer switching** and **EV Charging**.

### Atom Power Inc

Embedded Software Developer • Charlotte, NC

02/2016 - 03/2019

- Responsible for designing an end to end IoT system from embedded devices through cloud-based services, APIs, portals, and large-scale data collection systems
- Responsible for working with **RESTFUL Web Services** and implementing **RESTFUL API's**.
- Experience taking projects through **FEDRAMP certification** (cybersecurity - embedded and software).
- Extensive knowledge in developing **Single page Applications (SPAs)** for Atom Power products such as EV Charging Infrastructure, Solid state circuit breakers and many other products.

- Experienced in working on **Devops** operation process and tools area – **Unit test automation, Code review, Build and release Automation Environment, Incident and Change management**

## Atom Power Inc

Microprocessor and Firmware Developer Intern • Charlotte, NC

05/2015 - 12/2015

- Experience writing C code in a real-time embedded environment for Atom Circuit breakers.
- Driver level programming experience for gateway applications.
- Experience writing firmware for **TMS320C2000 series microcontrollers** (Texas Instruments board).
- Experience with **CAN bus systems** and associated tools
- Experience with X-Code – **Integrating firmware with Application** ( iPad and OSX apps)

## Charlotte Research Institute

Web Developer • Charlotte, NC

08/2014 - 04/2015

- Responsible for designing UI using **Angular2, HTML, CSS and NodeJS**.
- Assisted in building applications using **Python / Tkinter**.
- Used **JIRA** for bug tracking, **GIT** for Version control and **Jenkins** for continuous integration of builds

## iNautix Technologies India Pvt Ltd

Application Developer Intern • Chennai, TN

12/2013 - 02/2014

- Completed eight weeks of training on **Java, JSP Servlets and Basics of Unix**
- Underwent two months training on the basics of VLSI and software simulation of “Numerically Controlled Oscillator using FPGA“, IEEE'12 at MIT Campus (Anna University)
- Analyzed problems and worked with teams to develop solutions.

## Bharat Electronics

Junior Engineer • Chennai, TN

12/2011 - 08/2012

- Worked for Government of India Ministry and Defense
- Trained under department of Assembly, Inspection, Testing and Quality Management
- Collaborated with engineering team to determine project specifications.

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## Consulting

**2022 - Present** – Eastport Systems Netherlands  
Systems Architect

**2021 - 2022** – Learning Curve Technologies Subject Matter Expert – Engineering

**2020 - 2021** – Precious 3D Business Executive & Engineering Consultant

**2021 - 2022** – Karthigeya Plastics Engineering Consultant

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## Certificates

- Microsoft Certified: Azure Administrator Associate, · PMI – Agile Certified Practitioner, · Project Management Essentials – Certified, · Scrum Fundamentals Certified, · Six Sigma Yellow Belt, · Harvard Business School – Credential of Readiness
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## Projects and Publications

### Publications

Constantly Functioning Aduino Based Solar Tracker Fed Solar Panels (Electronic ISBN: 978-1-4673-6126-2) IEEE INTERNATIONAL CONFERENCE ON GREEN COMPUTING COMMUNICATION AND CONSERVATION OF ENERGY· Dec 13, 2013

Hydrogen Fuel Powered Car Launched by Resonant Inductive Coupling Hydrogen Fuel Powered Car Launched by Resonant Inductive Coupling IRD INDIA, BANGALORE IN THE JOURNAL INTERNATIONAL JOURNAL OF ADVANCED ELECTRICAL AND ELECTRONICS ENGINEERING (IJAEED) ISSN (PRINT): 2278-8948 · Dec 27, 2012

### Projects

- Implementation of Fuel Less Vehicle using Hydrogen Fuel Cell and Resonant Inductive Coupling
- Implementation of Wireless Power Technology
- Programming bare-metal ARM with QEMU
- RAID Based Memory Controllers (Memory Expansion Technique)
- Real Time Priority Based Web Server (TINY OS)

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## Education

### University of North Carolina at Charlotte

Master of Science in Electrical Engineering

12/2015

### Anna University

Bachelor in Electrical and Electronics Engineering

06/2014