HIMANSHU GARG

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`https://stackoverflow.com/users/786691/himanshu`

TECHNICAL SKILLS

Computer Languages	Python, Perl, JavaScript, TypeScript, C, SQL
Tools	Bash, Git, Excel

SUMMARY

I have programmed for more than a decade in different areas including source code analysis, web automation, software packaging, test automation, web applications, encoding conversion, PDF data extraction, and others. I am available for remote full/part time/contract Individual Contributor roles. Also open to roles that require overlap with other timezones.

RESEARCH

Assistive Technologies Group, IIT-Delhi   November 2017-August 2020
Sr. Project Scientist   *New Delhi*

· Integrated pdf2htmlEX, Maxtract, and other tools using **Typescript**, **Node.js** for converting **PDF** to accessible **HTML**. We take the HTML output from pdf2htmlEx and analyze the HTML to create an accessible/reflowable HTML. The tool can be used directly from the client's browser or from the server via puppeteer.
· Enhanced **InDesign scripts in JavaScript** to convert files containing non-Unicode Devanagari text to Unicode. The scripts used tables of strings/**regexes** to convert from source encoding to target and have been used to create accessible textbooks for the last 3 years by a major publisher.
· Supported workshops at NCERT to convert over 100 Devanagari textbooks in **InDesign** to Unicode `https://github.com/assistech-iitdelhi/InDesignFontConverters`

CONSULTING

Environmental Design Solutions   August 2017 - October 2017
Development Consultant   *New Delhi*

· Converted the building code to an Android app allowing users to filter sections of the code based on building characteristics. Created the app from scratch, with interface design inputs from the client. The app used **Javascript to dynamically analyze the HTML and created custom styles for rendering and filtering HTML** content.
· `https://play.google.com/store/apps/details?id=com.edsglobal.ecbc`

Knimbus   May 2014 - May 2014
Development Consultant   *Gurgaon*

· Documented the architecture, profiled and identified performance bottlenecks in **Perl web scrapers**.

VOLUNTEERING

MathJax on Translate Wiki   May 2020 - May 2020
Volunteer Translator

Translated nearly 100% of MathJax strings on TranslateWiki

`https://translatewiki.net/wiki/Special:Contributions/Hgarg`

Translators Without Borders   April 2017 - June 2017
Volunteer Translator

· Translated 80k+ words of English course content for Palliative Care Health Professionals. The team received the Empowerment Award Honorable Mention

`https://translatorswithoutborders.org/winners-6th-annual-access-to-knowledge-awards/`

NON-PROFIT

· **IRH, Georgetown University**   January 2008 - April 2010
Technology Manager   *New Delhi*

· Independently maintained and supported a **Django/MySQL/Redis/Celery** application for the "standard days" method of family planning from scratch to its closure. Users would enroll for the service by sending start dates to a designated number via SMS. The system would then ask screening questions via SMS and upon successful screening send periodic SMS reminders on unsafe days.
· Worked with partners including Thoughtworks, HCL, mGage, ISHP, and BoringBrands for integration, launch, support, and closure of 3 services including CycleTel Family Advice, CycleTel Humsafar for Nokia Phones and CycleTel Humsafar SMS service. Conducted field visits for focus-groups, training and technology support for field workers and call-counselors.
· Helped localize and test the CycleBeads app.
· `https://irh.org/cycletel/`

INDUSTRY

Adobe   February 2009-November 2013
Computer Scientist   *Noida*

· Independently maintained and supported **Python/XSLT tools used for software packaging, removal**. Created a **DSL** and its interpreter to generate test data to simulate products with complex dependency chains. Prototyped a **Solr** search system for **searching XML** files and displaying faceted results to filter Adobe products using specific installer features. Prototyped a **Python web server** to iterate over recent xml files and generate a Bootstrap styled report of Installation Directories and Conflicting Processes of all of Adobe's products. Owned the back-end of a web-based geographical visualization of Adobe's software activations, and the **back-end** of a web-based test automation system.
· Independently developed an Android app to create future calendar events using dates from incoming SMS by matching them against predefined **regexes**

Oracle   Aug 2006-Feb 2009
Application Engineer   *Hyderabad*

· Designed, developed, maintained and supported **SOAP** based command line wrappers for a modperl application used for hardware provisioning

SEEC   May 2004-June 2005
Software Engineer   *Hyderabad*

· Ported Unix **Lex-based lexical analyzers** to use Flex on Windows

TEACHING

The LNM Institute of IT   July 2005 - August 2006
Lecturer   *Jaipur*

· Lecturer for Algorithms & Data Structures, Computer Organization courses
· Wrote programs to **analyze source code** to detect similarity in submitted assignments and **Perl/SAMIE based scrapers** to automatically download entrance exam results by roll number to eliminate manual work

EDUCATION

International Institute of Information Technology, Hyderabad   *July 2006*
M.S. by Research in Computer Science & Engineering

International Institute of Information Technology, Hyderabad   *June 2002*
B.Tech. in Computer Science & Engineering

PUBLICATIONS

Rule based Mathematics and Layout Analysis of PDF Documents
Volker Sorge, M Balakrishnan, Neha Jadhav, Akashdeep Bansal, Himanshu Garg   *DEIMS, 2021*

· https://workshop.sciaccess.net/deims2021/program.html

Towards generating web-accessible STEM documents from PDF
Volker Sorge, Himanshu Garg, Neha M. Jadhav, M. Balakrishnan   *Web4All Conference, 2020*

· https://dl.acm.org/doi/10.1145/3371300.3383351

Making legacy digital content accessible at source
Sankalan Pal Chowdhury, Himanshu Garg, M. Balakrishnan   *Web4All Conference, 2019*

· https://dl.acm.org/doi/abs/10.1145/3315002.3332444

Implementation of CycleTel Family Advice: an SMS-based service to provide family planning and fertility awareness information in India
Nicki Ashcroft, Victoria Shelus, Himanshu Garg, et. al.   *mHealth Journal, 2017*

· http://mhealth.amegroups.com/article/view/14966/15110

RATES

INR 1250 per hour or equivalent.