

GUNAKAR CHALLA



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SKILLS

Languages: TypeScript/JavaScript, Java, Python, C, C++, SQL

Tools: Postman, DBeaver, Git, Docker, Kubernetes, Jenkins

Libraries & Frameworks: React, Express, Spring, PyTorch, Aurelia

Technologies: AWS, Linux, HTML5, SASS, Swagger, SAP PI/PO/CI

WORK EXPERIENCE

UNIVERSITY OF FRIBOURG | UNTERASSISTENT

Part-time | Aug 2024 – Present

- Automated the generation of schemas and OAS 3.0 specification for existing express APIs in MMAR.
- Implemented a comprehensive file management along with caching functionality in MMAR.
- Added code to support dynamic UI components for table attributes according to metamodel definition. Also, modified the code to support nested table attributes.
- Added functionality to import, render, simulate and map attributes of URDF files (robots) in MMAR.
- Researched and implemented a POC on migrating Aurelia MDC project from Webpack to Vite.
- Added custom functions in VizRep(a domain specific language) to render GLTF and fetch image files based on UUIDs of the files in MMAR.
- Performed code refactoring and fixed various frontend & backend bugs in MMAR.

Contact: Prof. Dr. Hans-Georg Fill, Professor (Department of Informatics)

LTM LTD. | CONSULTANT - PACKAGE IMPLEMENTATION

Full-time | July 2021 - Jan 2024

- As a PI/PO developer, created multiple interfaces using REST, IDOC, SFTP, adapters in Carrier ANZ project.
- Migrated scenarios (moved interfaces) from NW 7.5 SAP PI split stack system to Java only system in Clarios project.
- As part of Clarios AMS team, monitored the existing interfaces and resolved several runtime issues including high and very high priority tickets within the stipulated SLA period.
- As a Graduate Engineer Trainee, implemented a few interfaces using SAP Cloud Integration in Practice Unit.

Contact: Pravin Vichare, Director (SAP)

EDUCATION

Master of Science in Computer Science

Bern, CH | 2024 - Present

UNIVERSITY OF BERN

Grade: 5.5/6.0

PROJECTS

INTEGRATING LLMs INTO MODELING PLATFORMS TYPESCRIPT, THREE.JS, OPENAI, NODE.JS, DOCKER

Developed and demonstrated a prototype in the MM-AR platform which enables the users to create and modify visual models backed by a metamodel incrementally from natural-language prompts. Implemented modified function calling approach enhanced with few short examples. Published the research paper as fist author in CEUR-WS.

IDENTIFICATION OF INSECTS AND PREDICTION OF PESTICIDES PYTHON, DART(FLUTTER), PHP, SQL

Built an end-to-end AI-driven pest-management system that detects crop-damaging insects with YOLOv4 and recommends crop-safe pesticides via a Flutter app. Architected a serverless pipeline on UbiOps + PHP/MariaDB, cutting on-device compute needs to zero and achieving ~95 % mAP on nine insect classes.

ACHIEVEMENTS

- AWS Certified Solutions Architect Associate
- Business Unit of the Year Award
- Best Paper Award
- 2025 Student Innovation Grants
- State 4th Rank in 8th Intellectual Olympiad