

| | | | | |
|---------------------------|-----------------------|------------------------|-------------------------|--------------------------|
| Marco Juliani | | | | |
| portfolio | gmail | github | twitter | linkedin |

Growth-minded learner interested in data-driven approaches to problem solving.

5 years software development experience. 5 years working in architecture project delivery + CAD + geometric modeling.

Domains + technologies of interest: solvers, optimization, data visualization, CRDTs, full-stack development, embeddings, llm agents, search algorithms, geospatial, space-planning.

Work & Education

| | | | |
|-------------------|--------|---------------------------------|---------------------------------------|
| 10/2022 - current | NY | Senior Software Engineer | Outer Labs |
| 04/2021 - 10/2022 | London | Software Developer | KOPE |
| 02/2020 - 04/2021 | London | Computational Design Specialist | CallisonRTKL |
| 09/2019 - 01/2020 | London | Facade Consultant | Front Inc |
| 09/2018 - 05/2019 | London | MSc Architectural Computation | UCL Bartlett |
| 11/2017 - 08/2018 | Boston | Job Captain | Gensler |
| 02/2014 - 11/2017 | SF | Junior Designer | Woods Bagot |
| 08/2008 - 05/2013 | Tucson | Bachelor's of Architecture | University of Arizona |

Skills

| | |
|---------------------------------|---|
| Frontend | Javascript, Typescript, React, HTML, CSS, MUI, Tailwind |
| Rendering + Browser | Canvas API, Three.js, R3F, Pixi.js, Canvas-Sketch, Chrome API |
| Maps + Geospatial | Mapbox, Google Maps Platform, PostGIS |
| API + Scripting | Node.js, Express.js, Nest.js, Python, Flask, Go, C#, GraphQL |
| Database + ORM + Object Storage | Postgres, Firebase, Firestore, GCS, MySQL, IndexDB, TypeORM, Drizzle, Yjs, Liveblocks |
| DevOps + Infrastructure | Gitlab, Azure DevOps, Github, GCP, AWS, Docker |
| Product Lifecycle | Agile, TDDs, Docusaurus, Slack, GSuite, Linear, Notion |
| Data | Data Models, Mermaid, Ingestion Pipelines, DuckDB |
| LLMs & ML | RAG, Function-Calling, Haystack, LLama-Index, Pytorch, Numpy |
| Algorithms | GAs, L-Systems, Kohonen Nets, Neural Nets, Octrees |
| Computational Design | Rhinoceros, Grasshopper, Revit, Dynamo, Unity |

Involvement

| | | |
|---------|-----------------------------|--|
| 08/2024 | Competition | Untabbed: Gemini API Developer Competition |
| 04/2021 | Publication | Rumoer 76: voxel-based building + apartment generator mentioned in <i>Generative Design With Hypar</i> article (pg. 43). |
| 05/2020 | iOS game | Grid-locked: foray into game development during lockdown |
| 04/2020 | Talk | Data Management & Display: Elefront and Human UI |
| 01/2020 | Plugin | PlanBee for Grasshopper: cell-based spatial analysis plugin. |
| 08/2019 | Tutoring | Bartlett: <i>Introduction to Programming Workshop</i> (1) (2) |