MARK KOPANI

(604) 813-2609 ⋄ mkopani@gmail.com ⋄ [Website & Portfolio](#)

SKILLS

Client-side	React/Next.js, Redux, Material UI, CSS/Sass, Formik, Three.js/BabylonJS, Web3.js
Server-side	Python (Django, FastAPI), LangChain, OpenAI API, Node.js, Ruby/Rails
Infrastructure	AWS, Docker, MongoDB, PostgreSQL

EXPERIENCE

Data Stars AI Inc. (Vancouver, BC) *May 2023 - Present*
Senior Full Stack Engineer

· Built a responsive and robust FastAPI backend with WebSocket chat.
· Integrated LangChain to power an AI agent, advanced chat features, and smart background tasks.
· Developed an intuitive Next.js/Material UI frontend, significantly enhancing user experience.
· Executed a seamless Twilio WhatsApp integration for mobile communication with GPT agents.
· Implement AWS staging architecture; led strategic AWS-to-Azure transition planning.
· Managed and maintained MongoDB Atlas database, ensuring data integrity and performance.

Shape Immersive (Vancouver, BC) *March 2022 - Present*
Engineering Manager, Full Stack Web3 Developer *(Part time since March 2023)*

· Built white-label SaaS product in Next.js and MongoDB, leveraging Redux and Material UI.
· Facilitated Web3 wallet connection to React-based applications using Web3.js.
· Designed and implemented multiple REST APIs in Django and Express.js.
· Wrote Node scripts for Ethereum L1 and L2 solutions using Infura for blockchain connection.
· Bulk-minted Polygon ERC-1155 NFTs and transferred to a dynamic list of wallet addresses.
· Built internal 3D asset visualizer using both Babylon.js and Three.js packages.
· Used Twilio to implement multi-factor authentication.

Lighthouse Labs (Vancouver, BC) *December 2021 - Present*
Web Development Mentor (Part-time)

· Explain programming concepts to students by comparing them to real-world situations.
· Help students with technical difficulties involved with installing and running development tools.
· Guide students as they debug their assignments and projects.
· Have general discussions with students about programming and various career paths.
· Advise on best programming practices.

MarketLink (Vancouver, BC) *March 2021 - March 2022*
Software Engineer, Lead Developer

· MarketLink was an insurance startup co-founded by Murrick Insurance and Broker Link Software.
· Designed database schema and project structure for an insurance Broker Management System.
· Spearheaded UI/UX design and made adjustments with company directors.
· Implemented React front-end and several dynamic, multi-step forms.
· Built powerful React hooks to cater to the organization's specific form-building and validation requirements.
· Integrated with and contributed to a Ruby on Rails back-end with a PostgreSQL database.
· One of two full-time developers; oversaw multiple contractors.

EDUCATION

CFA Program participant, CFA Institute *December 2019*

· Completed Level I

University of British Columbia *September 2014 - April 2019*

· Bachelor of Science, Major in Statistics (with a thematic concentration on computer science)

NOTABLE PROJECTS

Data Stars   *https://datastars.ai/*

· Conversational AI for brands and teams.
· Built with Next.js, FastAPI, and MongoDB.
· LangChain integration for GPT-3.5 and GPT-4.
· Twilio integration for WhatsApp communication with GPT.

AlphaGen Skybox   *https://skybox.alphagen.co/*
Shape Immersive / AlphaGen

· Generative AI skybox creation for Unreal, Unity, and Blender.
· Next.js frontend and Node.js Lambda Functions as serverless backend.
· MongoDB Atlas database.

Weebox   *https://weebox.io/*
Shape Immersive

· A public release page for a client's NFT collection.
· Built with Next.js.

Safer   *https://mkopani.github.io/projects/safer*

· Web3 wallet prototype focused on ease of use and security.
· Proof-of-concept is a fork of MetaMask browser extension with refreshed UI.
· Brand new features include multi-factor authentication.

Arc   *https://mkopani.github.io/projects/arc*

· White-label NFT store and marketplace catered to individual creators.
· Built with Next.js and a MongoDB database.

F3STIVAL   *https://mkopani.github.io/projects/f3stival*

· Bulk minting of ERC-1155 Polygon NFTs.
· Bulk NFT transfer Node script.
· Uses Infura as Web3 provider.

Format As You Type   *https://github.com/mkopani/format-as-you-type*

· NPM package built for React.
· Input field formatter that supports all input components and is fully customizable.
· This allows the developer to hook into their existing components rather than using a brand new component like with other packages.

LEADERSHIP

Shape Immersive   *Mar 2023 - Present*
Engineering Manager

Psi Upsilon Fraternity – UBC Alumni Association   *January 2021 - January 2022*
President

· Oversaw an organizational budget upwards of $200,000.
· Was primary contact for Undergraduate President in the event of an emergency and for general inquiries.
· Maintained constant communication with the Executive Director of Psi Upsilon International (Indianapolis, IN).
· Spearheaded the refinancing of the fraternity house's mortgage.