MHAR ANDAL

Senior Software Engineer
Chicago, IL

A visionary technologist, product thinker, and engineer.

me@mharvelous.io
+1 847-890-3232

mharvelous.io
linkedin.com/in/mharandal
github.com/mhar-andal

EXPERIENCE

Varsity Tutors, a Nerdy Company ($NRDY)
— *Senior Software Engineer III*
Codeverse – A digital creative coding platform for kids

Jun 2022 - Present

- **Building Codeverse,** an award-winning coding platform for kids ages 6+, inspiring and empowering kids to bring their ideas to life while developing skills that last a lifetime.
- **Led engineering efforts** for the seamless integration of Codeverse into the Varsity Tutors for Schools platform, expanding platform access to 5M+ students nationwide.
- **Led the migration** of the platform from Create React App to Next.js, optimizing performance, scalability, and accessibility. Streamlined deployment by hosting on Vercel. Improving load times by 40% and increasing scalability, supporting 1M+ monthly active users.
- **Implemented a GraphQL API** on top of the existing CRUD API to supercharge queries full-stack across the platform, boosting load times by 40% and improving developer experience.
- **Worked with the Head of Design** to redesign the entire product experience to cater to a broader age range.
- **Architected and implemented** a custom content management system (CMS) for creating and editing dynamic, interactive coding missions, reducing content creation time by 50% and increasing user engagement by 30%.
- **Utilize AI-coding copilots** to supercharge developer productivity and OpenAI Chat-GPT to generate various content within the Codeverse Coding Platform, reducing developer and content creation workload by 40%.
- **Finetune LLMs** such as Falcon and GPT-4 to learn our proprietary kids coding language, generate sample code snippets and coding content.
    - Achieved a 90%+ accuracy rate in generating valid code snippets aligned with the proprietary kids' coding language rules.
    - Enabled the generation of 200+ high-quality sample code snippets, reducing manual content creation time by 40%.
    - Created 50+ new coding missions and educational content pieces within a timeframe of 3 months, boosting platform content output by 50%.
- **Led the innovation** of the product, leading brainstorms and discussions for the gamification aspect of the platform, boosting retention rates by 25%.
- **Participated in annual leadership summits**, experiencing top company initiatives ideate and collaborating with leaders throughout the organization to help guide the company at the forefront intersection of AI and Education.

SOFTWARE INTERESTS

React / Typescript
Next / Remix
Ruby on Rails
Postgres / SQL / NoSQL
GraphQL
AWS
Tailwind / SASS & BEM / CSS
Design Libraries
LLMS / Prompt Engineering
Accessibility
Web Performance
Developer Experience
Build Automation and Deployments

TOOLS

Figma
Cursor AI
Linear
Notion
Jira
ChatGPT

Codeverse (Acquired by $NRDY)— *Senior Software Engineer*
A digital creative coding platform for kids

Aug 2019 - Jun 2022

- **Architected and scaled** a robust foundation for building frontend applications with a monolithic architecture, ensuring long-term maintainability and efficiency.
  - **Developed and maintained a comprehensive design system** for frontend applications in React.js, standardizing UI components and improving consistency across projects, resulting in a 30% increase in development efficiency.
  - **Implemented continuous deployment pipelines**, package releases, and integration testing using BuildKite, CircleCI, GitHub Actions, and Docker, reducing deployment times by 70% and increasing reliability for 30+ deployments monthly.
  - **Leveraged code generation techniques** to rapidly produce high-quality features, reduced feature development time by 30%, cutting average time-to-deliver from 10 days to 7 days per feature. Built reusable code generation templates that are utilized across 80% of new projects, standardizing development practices.
- **Developed a RESTful data client** for an administrative CRUD app in React.js, optimizing backend data operations, streamlining administrative workflows, cutting average task completion time by 60%.
- **Architected and developed** a social platform for sharing games, with features like interactive live streams and social feeds. Increasing platform user retention by 25%, from an initial retention rate of 40% to 50% over 3 months. 60% of users returned weekly for live streams or social interactions, showing strong engagement with platform features.
- **Built a marketing website** using static site generation with Gatsby.js and a CMS, empowering non-technical staff to create new pages with minimal engineering effort, improving team autonomy. Enabling the marketing team to publish 20+ pages per quarter, increasing content output by 50%. Reduced engineering involvement in content updates by 80%, freeing up 5-10 hours per week for the team.
- **Partnered with the VP of Product** to establish a structured process for product development, aligning team efforts with business goals.
  - **Estimated project timelines** and worked in an agile environment alongside the VP of Product and VP of Design to deliver features efficiently and meet stakeholder expectations.
  - **Improved feature delivery predictability**, achieving 95% of sprint goals.
- **Led engineering efforts** to transition business operations from in-person to remote sessions via virtual conferencing during COVID-19.
  - Enabled a seamless transition within 1 month, ensuring 100% operational continuity during the pandemic.
  - Built a virtual conferencing solution supporting 300+ sessions daily, with > 90% user satisfaction
- **Represented Engineering and Product** in the Leadership Team. Collaborating with a small team to build a SaaS product from the ground up, contributing to both engineering and product strategy.
- **Conducted interviews and evaluated** coding challenges to identify top talent.
- **Onboarded engineers and contractors**, enabling quick contribution to a large and complex codebase with minimal ramp-up time.

Codeverse— Full Stack *Software Engineer*
An interactive coding studio for kids

Aug 2018 - Aug 2019

- **Series A Hire** (1 of 2 engineers)
- **Developed and maintained** an admin CRUD application using Ember.js, streamlining administrative tasks and improving efficiency.
- **Managed iOS devices and app deployments**, ensuring seamless operation and updates for the studio's technology infrastructure.
    - Achieved 100% deployment success rate across 200+ iOS devices, ensuring uninterrupted studio operations.
- **Developed IoT features** to control physical devices such as concert lights, speakers, and TVs via a native iOS application, utilizing Node.js, Express, and WebSockets to create immersive, interactive experiences.
    - Maintained system reliability with 99.8% uptime, ensuring smooth operation of concert lights and TVs during studio sessions.
- **Observed and gathered feedback** from class expeditions, leveraging insights to enhance product innovation and improve user experience.
- **Developed and maintained** an admin CRUD application using Ember.js, streamlining administrative tasks and improving efficiency.
- **Led the migration** of a legacy codebase from Ember.js to React.js, modernizing the platform, improving performance by 60% and maintainability by 40%, cutting average bug resolution time from 5 hours to 1-2 hours.
- **Architected and developed** digital coding missions and badge achievement systems, driving student engagement and motivating continued learning.
    - Increased student engagement by 30%, with 20 new missions completed monthly on average.
    - Badge acquisition rates to near 60%, motivating students to continue learning
    - Reduced development time for new missions by 20% through reusable design patterns and tools.

Gamut, A Grainger Company — *Full Stack Software Engineer*
MRO e-commerce platform

Apr 2017 - Jul 2018

- **Collaborated with Product Managers** to design and implement a customer service platform, equipping representatives with tools to handle 1,000+ abandoned carts, returns, refunds, and product support inquiries daily**.**
    - **Led the integration** of phone software, enabling call recording and playback tools with a 99.9% accuracy rate for call retention.
    - **Reduced time for customer inquiry follow-ups** by 30%, increasing operational efficiency for customer service representatives.
    - **Supported the analysis** of 500+ calls monthly, enabling insights into customer pain points and improving service quality.
    - **Collaborated with senior engineers** to build returns and refunds backend through pair programming and helped integrate those features into the customer service application.
- **Collaboratively built** responsive UI components and features for internal tools and the MRO e-commerce platform, improving user experience and operational efficiency.

- - **Developed and integrated components** for branded internal UI libraries with an auto generated style guide with storybook.
- **Utilized and enhanced** the automated testing and deployment CI pipeline, ensuring rapid and reliable feature delivery.
  - - Enhanced node package versioning and deployments using Buildkite.
- **Built and maintained** a customer service API gateway to handle authentication, API contract testing, and requests routing to our orders and customers platforms.
- **Conducted weekly check-ins** with shareholders, product managers, and external vendors to ensure projects were moving along smoothly.

EDUCATION

Dev Bootcamp — *19 week Software Engineering Program*

2016-2017

Dev Bootcamp is a 19-week full-stack intensive training program for aspiring web developers, with a focus on producing developers who can both collaborate and communicate effectively.

- Pair-programming to learn both technical and collaborative skills.
- Participated in weekly engineering empathy sessions focused on the communication and emotional aspect of working in tech.
- Led a team of 4 to build a cryptographically stored data warehouse for private information built with Ethereum blockchain technology.

PROJECTS

Filipinoadz — *Utility Based NFT*
May 2022

- Migrated client side react application to a server rendered react application with Remix to support token gating content
- Implement token gated content solution that verifies NFT ownership to display discount codes for filipino small businesses
- Implemented NFT minting with MetaMask wallet