

# ELLY JOHN MIRASOL

## FULL STACK SOFTWARE ENGINEER

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### PROFESSIONAL SUMMARY

Detail-oriented and highly analytical Software Engineer with comprehensive experience in full-stack development and AI integration. Leverage AI-assisted development tools to accelerate delivery and enhance code quality, allowing for efficient deployment while maintaining high standards. Proficient in designing scalable applications, training/implementing reinforcement learning models, managing advanced LLMs, and optimizing cloud deployment. Passionate about modern frameworks, automated systems, and delivering robust, AI-driven solutions.

### CORE COMPETENCIES / KEY SKILLS

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- AI-Assisted Development & Model Integration
- Reinforcement Learning & Deep Neural Networks
- Full Stack Web & Mobile Development
- Cloud Architecture & Deployment
- Database Design & ORM
- System Troubleshooting & Optimization
- Version Control & CI/CD

### PROFESSIONAL EXPERIENCE

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**Junior Software Engineer** 06/2024 – Present  
**Microsource Inc. (Quezon City, PH)**

- Leverage AI-assisted development tools, including Claude Code, OpenCode, and z.ai GLM models, to accelerate project delivery and enforce high code quality standards across software applications.
- Manage and implement transitions between advanced AI models (including Gemini and GLM versions) for seamless project integration and enhanced capabilities.
- Architect and deploy full-stack web and mobile applications utilizing Remix.js, TypeScript, Tailwind CSS, C#, .NET, and Prisma.
- Configure and manage cloud backend environments and deployments using Vercel, Convex, and Railway.
- Utilize NVIDIA Developer Program resources to build and scale team-based cloud development initiatives.

**Mobile Developer (OJT)** 06/2019 – 09/2019  
**MapX.ph (Butuan City, PH)**

- Developed a mobile application for managing assets and properties.
- Integrated custom mapping features for reliable spatial data visualization and tracking.

## PUBLICATIONS & RESEARCH

### Co-Author, Research Paper

01/2020

*Development of an Optimal Road-Traffic Controller through Reinforcement Learning* ·

- Implemented Reinforcement Learning (RL) architectures to construct an autonomous, real-time traffic light agent. ·
- Evaluated and compared two advanced machine learning methodologies using an identical deep neural network architecture: Deep Q-Learning/Network (DQN) and Covariance Matrix Adaptation Evolutionary Strategies (CMA-ES). ·
- Simulated intersection scenarios within Unity 3D, proving that CMA-ES significantly reduced congestion and outperformed both the DQN model and traditional fixed-time baselines.

## KEY PROJECTS

### BasaTrack

11/2025 – Present

AI-Assisted Full Stack Project

- Developed and deployed a daily tracking mobile/web application for the synchronized two-year Bible reading plan used by the Lord's Recovery in Southern Philippines.
- Leveraged AI development tools to accelerate coding, optimize application state management, and ensure high code quality for rapid App Store Distribution.

### R.E.K.L.A.M.O. System

06/2025 – Present

AI-Assisted Full Stack Project

- Architected a comprehensive event management system for Church meetings and conferences in the Lord's Recovery.
- Streamlined complex workflows including participant registration, accommodation management, group assignments, finance tracking, and event administration.
- Utilized AI coding assistants to efficiently build out backend infrastructure, database schemas, and responsive user interfaces.

## EDUCATION

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### Bachelor's Degree in Computer Science

2020

Caraga State University, Butuan City, PH

## TECHNICAL SKILLS

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- **AI & Cloud Platforms:** z.ai GLM Models, Gemini Models, Claude Code, OpenCode, NVIDIA Developer Tools, Convex, Railway, Vercel
- **Database & Architecture:** Prisma, Postgres, MSSQL & Convex
- **Software & Tools:** GitHub, App Store Connect, Android Studio
- **Programming & Frameworks:** TypeScript, Remix.js, Python, C#, .NET, Dart, Flutter, PHP, HTML, CSS, Tailwind CSS

## TRAININGS & SEMINARS

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- Hands-On React. Build advanced React JS Frontend with expert (2025)
- Python Data Science & React Development Courses via Udemy/Coursera (2024-2026)
- Complete Introduction to SQL programming via Udemy.com (2023)
- JavaScript PHP and Python Programming Complete Course via Udemy.com (2023)
- Using HTML and CSS to Design a Website via DICT Coursebank.ph (2022)