# Rasha Moumneh

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I am a customer-focused software engineer with a strong foundation in fullstack development and over three years of building scalable tools, solving complex problems, and improving processes across software engineering and support engineering functions. With a background in the academic and non-profit sectors, I bring a unique perspective to tech, blending a drive for problem-solving with a commitment to impactful work.

## **SKILLS**

Languages: JavaScript, TypeScript, Node.js, Python, Perl, Go (currently learning)

Frameworks and Tools: React, Next.js, Express, Django, SQLAlchemy, Unix, TailwindCSS, Docker

Databases: MySQL, PostgreSQL, SQLite, MongoDB

Other: Email protocols (IMAP, JMAP, SMTP, SPF, DKIM, DMARC), CI/CD, REST APIs, Git workflow

Communication & Collaboration: Agile methodologies, technical documentation

#### **EXPERIENCE**

#### Software Engineer, Fastmail

Jan 2023 - June 2024

Fastmail is a privacy-focused email provider.

## • Feature Development:

- Implemented email address rules feature in Perl, extending the existing mail filtering system with a new API to enable per-address forwarding, blocking, and folder targeting while maintaining security controls and spam protection integrity.
- Designed and implemented extensible video conferencing architecture using OAuth 2.0 and IETF JMAP calendar standards, with successful pilot integration of Zoom and framework for rapid adoption of additional providers
- Redesigned and integrated a referral system with a third party referral management API, enabling paying users to become partners and earn commissions. Implemented secure referral tracking, legacy system migration, and automated discount handling, improving user engagement and system reliability.

#### • System Optimization:

- Redesigned email service architecture by separating core components and introducing JMAP APIs for self-service functionality. Enabled users to manage their own settings while enforcing strict administrative controls. Simplified system design with clear separation of concerns and granular permissions.
- Streamlined legacy code to improve system maintainability and accelerate new feature development.

#### Support Engineer, Fastmail

Sep 2020 - Jan 2023

- Resolved complex technical issues while serving as escalation lead, managing high-priority tickets and coordinating with engineering teams for timely resolution.
- Established and formalized engineering support workflows, including escalation protocols, developer collaboration processes, and documentation playbooks.
- Contributed to the migration of the support system from a legacy tool to Zendesk by developing middleware to manage authentication and ticketing across Fastmail's products.
- Designed and wrote tools to enhance internal operations, including:
  - A customer communications system for sending targeted notifications to users. Features include plugin-based user targeting, database-backed delivery tracking to prevent duplicate sends, standardized email templates, and a CLI for managing communication campaigns. Used in production to handle critical user communications during service incidents.
  - A tool to automate help article migration from legacy helpdesk software to Zendesk, reducing manual effort and improving accessibility.
  - A Slackbot-integrated task management client for ticket tracking.
  - CLI programs to replace legacy Perl support scripts, empowering support agents with simplified workflows.

## Customer Support Agent, Fastmail

Apr 2019 - Sep 2020

- Delivered exceptional support through troubleshooting technical issues and documenting customer solutions.
- Wrote comprehensive user documentation that improved customer education, leading to a significant reduction in support inquiries

## Software Engineer (contract), Key Conservation

May 2020 - July 2020

Key Conservation is a non-profit that connects conservation organizations with individuals to provide real-time support through skilled contributions, funding, and volunteer opportunities.

- Developed an onboarding feature for the organization's social media app using React Native, Node.js, and Express.
- Implemented backend migration from AirTable to PostgreSQL, improving data structure and scalability.
- Designed and built a prototype admin dashboard for managing platform activity.

#### Program Coordinator/Instructor, Rutgers University

Sep 2013 - Mar 2019

- Developed global campaign communications strategy for the Center for Women's Global Leadership.
- Designed and taught in-person and online undergraduate courses in gender studies.

Prior experience in non-profit organizations in Lebanon and the broader Middle East.

## **EDUCATION**

Bloom Institute of Technology (formerly Lambda School), Full Stack Web Development, Remote Rutgers University, PhD coursework Gender Studies, New Brunswick, NJ University College London, MA Social Anthropology, London, England American University of Beirut, BA Psychology, Beirut, Lebanon

#### **PROJECTS & VOLUNTEERING**

- **Igor** (GitHub repos in <u>Python</u> and <u>Node.js</u>) An extensible multi-platform chatbot framework that enables automated interactions across messaging platforms. Built separate implementations in both Python and Node.js using a modular architecture that decouples platform-specific code from the core engine. The system's central hub orchestrates message routing between platform adapters (Discord, Telegram, Console) and customizable reactors that handle command processing and response generation through event-driven communication. Handles multiple conversations simultaneously through asynchronous processing and implements a flexible plugin system, enabling new features to be added without touching the core codebase.
- Philly Farmers' Markets (<u>GitHub</u> repo, <u>Live site</u>) A responsive web app for locating and displaying information about Philadelphia farmers' markets. Integrated ArcGIS REST API for real-time market data. Features include an interactive map, search functionality, and filters for markets currently open. Built in Next.js, Leaflet.js, ArcGIS REST API, TailwindCSS.
- The Feed-o-tron ( <u>GitHub</u>, <u>Live site</u>) A full-stack web app that transforms any website into a structured RSS feed through multi-strategy content analysis, featuring an interactive visual interface for mapping webpage elements to feed fields with real-time previews. Implemented advanced HTML parsing and content extraction algorithms using Cheerio, with fallback to GPT-3.5 analysis for complex page structures. Built with Vanilla JS, TypeScript, Express, TailwindCSS.
- Family Justice Center of Washington County (In Progress, Live site) A responsive web application that helps domestic violence survivors find relevant support services through the Family Justice Center of Washington County. Built a guided form system that maps user responses to appropriate local services, with a Redis-backed analytics dashboard that enables FJCWC staff to track service needs and usage patterns. The secure admin interface allows staff to download engagement data for grant reporting and service planning. Built with Next.js/TypeScript, TailwindCSS, and Redis.