Mohamad EL-Chanti

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SUMMARY

A dynamic software engineer with a background in manufacturing engineering at Tesla Motors and significant software development experience at Trellis and Penlink. My expertise spans from developing a CI/CD pipeline for serverless applications to full-stack development, including React, Aurelia, Express.js, and Spring Framework. My career is defined by my ability to solve complex problems, adapt to new technologies, and contribute to innovative projects across a wide range of technical environments.

SKILLS

Back End
Spring, Express, Node.js, Python, RESTful APIs, Java, Golang, C#, GraphQL

Front End
React/Redux, Aurelia, HTML, CSS, D3.js, Angular, JavaScript, Typescript

Databases
Relational and non-relational databases; SQL, Elasticsearch, Redis, MongoDB, DynamoDB

Other
AWS Services, Docker, GIT, ELK, IaC tools (SDK, CDK, SST, Ansible), Digital Ocean, Kafka, Linux

TECHNICAL EXPERIENCE

Full Stack Software Engineer, *Pen-Link Inc.* 2023 – 2024 | Toronto, Canada

Adhering to Agile development practices, implemented front-end and back-end components for analytical tools designed to assist detectives and officers in crime investigations.

- Designed and implemented a feature enabling users to customize table layout. The feature utilizes Hibernate and SQL for database adjustments, Spring for backend computations, and Aurelia for the frontend UX, reducing customization time by five minutes per case.
- Owned application monitoring; upgrading and streamlining the ELK stack, leading to a dramatic reduction in noise—from five alerts per day to just one or two per week—thus significantly enhancing operational efficiency and insight.
- Engineered an advanced server solution transforming GeoJSON to Vector Tiles, achieving a groundbreaking 99.9% improvement in rendering speed—from ten seconds to milliseconds—for up to two million events, significantly enhancing user experience.

Software Engineer, Co-Creator, *Trellis* 2022 – 2022 | Remote

Open Source CICD pipeline for serverless applications that streamlines configuration time to as little as 20 minutes instead of the existing pipelines' configuration time of one hour. Designed the entire infrastructure with a remote team.

- Designed and developed a backend that consists of a collection of serverless Lambda functions, an API gateway, and a DynamoDB Database
- Built a React-backed dashboard tool that allows users to manage their pipeline. Hosted on AWS S3 and delivered with AWS CloudFront
- Authored a comprehensive case study on the design decisions encountered while creating the pipeline and the problems Trellis solves. https://trellis-deployment.github.io/

Senior Manufacturing Equipment Engineer, *Tesla Motors Inc* 2017 – 2021 | Fremont, California
Technical Program Manager

- Integrated a VMT vision system and programmed Fanuc robots to improve the quality of urethane bead application on the roof and windshield glass for Model Y
- Worked with Excel VBA to analyze parts introduced with the PLAID launch for Model S and Model X to differentiate them from existing models
- Mentored interns and junior engineers

EDUCATION

Software and Computer Engineering, *Launch School* 2021 – 2022

BASC HONORS MECHANICAL ENGINEERING - MANAGEMENT SCIENCES OPTION, *University of Waterloo* 2017 | Waterloo, Ontario

- Awards: Nominated to most innovative award for the fourth-year design project
- Project: Designed a PCBA with Bluetooth capabilities and programmed an Android application to communicate with an Arduino set and control an automated soccer ball launcher.