# PAUL NAM

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## EXPERIENCE

**Co-Founder | Layrd (Startup)** **04/2023 - Present**

- Architected and deployed a responsive website using React, JavaScript, and Tailwind CSS with an optimized load time of under 3 seconds by following agile methodology.
- Integrated 4+ CRUD-based API endpoints by coordinating with a backend developer.
- Supported the building of database models and successfully deployed the server and database to EC2 and RDS using FLASK and SQLAlchemy.
- Expanded expertise in 7 key areas: Full-Stack Web Development, Git, React, JavaScript, Tailwind CSS, CRUD, and debugging using Chrome Developer Tools.

**Electrical Design Engineer | PACCAR** **11/2022 - Present**

- Developed software that automates key truck integration tasks and enhanced work efficiency by 30%.
- Engineered 3+ primary electrical systems for engine & safety functionalities, and testing processes.
- Leveraged knowledge across 4 tools: Six Sigma, semi-automobile design process, Openpyxl, and CREO.

**Electrical Test Engineer | Qualitel** **08/2022 - 11/2022**

- Led Troubleshooting efforts on a critical production line, resulting in securing over $2M+ in revenue.
- Collaborated on building test fixture for medical device utilizing Labview by referencing Python3 scripts.
- Documented test procedures for test fixtures and supported assembly 3+ lines to ensure project completion.
- Proficient in 6 techniques: Python3, client communication, PCB troubleshooting, and automation test fixtures.

## PROJECT

**MukJa Web (Let's Eat)** **06/2023 - Present**

- Designed a full-stack web with React & Flask, implementing CRUD operations that load in 4 seconds.
- Built a Flask API with a star-snowflake DB using SQLAlchemy, PostgreSQL, and managed 4+ data models.
- Structured CRUD APIs, integrating 6+ endpoints to the frontend in an EC2 and RDS environment.
- Employed 9 primary tech: React, JS, Flask, PostgresQL, Firebase, Marshmallow, Tailwind, Git, Docker.

**Privacy-Preserving Image Processing for IoT (Research IEEE Publication)** **08/2021 - 06/2022**

- Contributed to research that culminated in an IEEE publication, emphasizing the application of homomorphic encryption for IoT image processing.
- Developed an IoT application employing homomorphic encryption to secure 512x512 pixel data. Utilized C++, OpenCV, and Microsoft SEAL on a UNIX platform, achieving optimal PSNR and performance benchmarks.
- Implemented New Comparison Method from Seoul National University, transforming pixel values to -1 to 1, optimizing multi-level thresholding in Microsoft SEAL's homomorphic encryption.
- Utilized 5 main tools: C++, OpenCV, SEAL, Unix environment, and Verilog to automate test execution.

## SKILL

- Language: Python, Javascript, C/C++, Java, Typescript.
- Frameworks/Tools: React, Nextjs, Flask, Django, Firebase, Docker, Git, NPM, YARN.
- Cloud Services: AWS EC2, AWS RDS, Vercel.
- OS & Database: Unix, Linux, Ubuntu, PostgreSQL.
- Web: HTML/CSS, SCSS.

## EDUCATION

**University of Washington Bothell** **09/2020 - 08/2022**

- **Major**: Electrical Engineering, B.S.E.
- **Relevant Coursework**: Microcontroller System Design, Hardware and Computer Organization, Digital Circuit and Systems, Signal Processing, Java Programming, Technical Writing.