

# Daniel Thureau

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## WORK EXPERIENCE

### DFINITY - Software Engineer

Nov 2021 – Present

- Served as the lead engineer on the Service Nervous System project, a Rust based DAO platform that spawns autonomous distributed systems providing decentralized governance and tokenization of dapps. The platform had 10 individual projects raise over 3 million ICP (~\$12 million) within its first six months. The development of this platform required me to design and implement many aspects of the system, including the governance and swap smart contracts, a cold wallet command line tool, and a master orchestrator smart contract. As the lead, I also performed cross-team coordination, including interfacing with DFINITY's legal department, developer relations, product, security, and several engineering teams. During the execution of this project I presented demos and updates to the ICP public community, to internal partners, and to company leadership including our CEO and CTO.
- Maintained the Network Nervous System DAO, the DAO that governs the Internet Computer Protocol. I implemented new backend operations for our 200k users and worked with the wallet team to integrate these operations into the Svelte app. I also worked on improving my team's devops practices which included improving logging and log collection within the various smart contracts, improving metrics and alerting, and pioneered runbooks for how to perform safe upgrades and release on a weekly cadence.

### Amazon - Software Developer Engineer II

Oct 2018 – June 2021

- Amazon F3:** Built Java microservices for post-order fulfillment orchestration to support grocery delivery products on Amazon.com. Improved order cancellation web services to reduce the number of stuck Amazon Fresh orders by 5%.
- Alexa Mobile Personalization:** Created a Ranking as a Service (RaaS) web service that deployed machine learning models for channel owners across the Alexa Mobile Org. Developed a data pipeline using AWS Kinesis Streams, AWS Lambdas, AWS DynamoDb, and AWS S3. Integrated A/B testing frameworks into the RaaS to run experiments to improve metrics such as CTR and DSI.
- Alexa Mobile Home Channel:** Built and maintained Java REST microservices using AWS infrastructure, including a content aggregator platform for domains across Alexa. Developed a CMS for product managers to easily create and iterate static content. Created Privacy Compliance applications that satisfied GDPR, COPPA, and CCPA laws. Lead efforts in chaos and load testing backend services.

### Learning & Experimental Economics Projects Lab - UC Santa Cruz - Developer

Apr 2017 – Aug 2018

- Wrote programs to allow professors to simulate how players could behave during open-market experiments using the Gherkin Syntax Language. The program defined player choices and transformed those choices into programmable actions in the simulated market and allowed our team to test each software release and analyze simulated stock markets for department research projects.
- Contributed to a fork of Redwood, an open-source project for coordinating distributed players in a simulated market written in JavaScript.

## PROJECTS

### ColorSplash

Jun 2021 - Oct 2021

- Developed a web application that allows users to query and browse royalty free images that have colors within a certain Euclidean distance of a provided HEX code.
- Implemented the data processing component with AWS Lambda using python open-cv2 for image processing and NodeJS for scraping the dataset.
- Built the website's backend with API Gateway and AWS Lambda to ballpoint query a KDTree data structure. Constructed the front end with GatsbyJS and hosted via Gatsby Cloud.

### Smudge Art Box

Jun 2021 - June 2022

- Assisted the founding of an ecommerce business selling curated ready-made art supply kits with an emphasis on mental health that turned a profit within its first quarter.
- Owned the financial vertical including bookkeeping, taxes, invoices, and pricing.
- Helped source inventory during the product design phase and provided feedback on key product decisions.

## EDUCATION

### University of California: Santa Cruz

Sept. 2014 - June 2018

Bachelor of Science, Computer Science

Santa Cruz, CA

## SKILLS

Rust, Java, Python, Bash, Javascript, React, C/C++, SQL, NoSql, Latex, HTML/CSS; AWS Lambda, AWS EC2, AWS DynamoDB, Spring Boot/Dagger, Django, Jupyter, GatsbyJS;