Ellek Linton

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Education

University of California, Berkeley — **August 2017 - May 2020**
B.A. in Data Science

Work Experience

PayPal — **San Francisco, CA**
Software Engineer II, Apple Pay (Java, React, NodeJS, Typescript) — *January 2022 - Present*

- Built full-stack scalable PayPal Apple Pay integration for web, consumed by thousands of merchants
- Developed backend REST APIs to facilitate Apple Pay transactions at scale (100,000+ transactions/month)
- Collaborated across multiple teams and domains, contributed to high-volume payment processing APIs
- Created full stack test tool to simulate Apple Pay integrations, streamlined testing for 100+ internal users

Software Engineer, Merchant Onboarding (Java, NodeJS, GraphQL, SQL) — *July 2020 – January 2022*

- Designed and deployed brand-new GraphQL API, facilitating onboarding of over 10,000 new merchants
- Led expansion of our product into more countries, enabling $35M+ of new revenue opportunities
- Built and maintained high-volume REST APIs to onboard merchants (500+ requests per minute)
- Managed team scrum processes as scrum master, planned/prioritized tasks to ensure on-time deliverables

Edify.ai — **Remote**
Contract Consultant / Lead Engineer (Typescript, NodeJS, Azure, AWS) — *July 2021 - Present*

- Architected, built, and deployed brand new REST API platform in AWS, serving over 800,000 records/day
- Created schema validation framework to enforce JSON schema and ensure consistent user experience
- Built several API services, each integrating with auth, schema validation, and testing frameworks
- Built continuous integration pipeline to ensure stable builds and enable automated continuous deployment

Personal Projects

Pied Poker *(Colab Notebook & GitHub Link)* — ***Berkeley, CA***
Python, Numpy, Pandas, Matplotlib, NodeJS, Typescript, React — *February 2022 - Present*

- Built powerful poker probability engine from scratch to calculate any probability with Monte-Carlo simulations
- Published package to PyPI to make it accessible for users and developers (18k+ total downloads)
- Overcame computational limits in real-time poker calculations, which are too vast to compute in real-time
- Optimized engine and simulation performance to produce comprehensive statistics in a matter of seconds

Baus Playlist Maker *(on iOS App Store)* — ***Berkeley, CA***
Google Cloud, iOS (Swift), Python, Pandas, Numpy, Java — *May 2019 – Present*

- Created machine learning model from scratch to generate a unique playlist from one seed input song
- Overcame curse of dimensionality (13 dimensions) and improved runtime from $\Theta(n)$ to $\Theta(\log(n))$
- Integrated with Spotify API for seamless user experience and immediate playlist listening availability
- Structured and optimized original database of 800,000+ songs with quantified song features and attributes

Skills and Interests

Programming Languages: Python, NodeJS, Javascript, TypeScript, Java, Swift, SQL, NoSQL
Libraries: React, Tensorflow, Keras, Jupyter, Pandas, Numpy, Seaborn/Matplotlib, Regex, Scikit-Learn
Skills: Software Engineering, REST/GraphQL APIs, Machine Learning, Optimization, Data Structures, Data Modelling, Business Analytics, Testing, Probability, Linear Algebra, Differential Equations, Multivariable Calculus
Interests: Poker, Movies (David Lynch), Electric/Classical Guitar, Hypoallergenic Dogs