

# Louis Gourand

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## EDUCATION

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### University of Michigan – Ann Arbor, MI

Sep 2017 – Apr 2021

#### B.S.E in Computer Science Engineering

- GPA: 3.92/4.00
- Awards: Dean's List (all semesters), University Honors, EECS Scholar, James B. Angell Scholar
- Coursework: Operating Systems, Compilers, Data Structures & Algorithms, Computer Security
- Skills: C/C++, Python, JavaScript (Vanilla, React, Node), SQL, HTML/CSS, Linux, Git, Agile, French (bilingual)

## WORK EXPERIENCE

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### Lyft – San Francisco, CA

May 2020 – Jul 2020

#### Software Engineering Intern – Express Drive Renter Experience

- Built, scheduled and rolled out timely rental renewal and charge email communications for renters through a microservice architecture, reducing the cost to renters by up to \$500 a week from the consequence system
- Identified and successfully spearheaded the fix of a major pay-service migration issue prior to hitting production, preserving integrity of payment card information emailed to users through 300K+ weekly receipts
- Redesigned the driver verification system for rental renewals in Python to prevent Lyft drivers deactivated for safety and compliance issues from accessing Express Drive vehicles
- Piloted post-COVID restart of escalation consequences for overdue rentals in collaboration with Operations

### CME Group – Chicago, IL

May 2019 – Aug 2019

#### Software Engineering Intern – Trade Execution Systems

- Enabled fault tolerance capabilities for gateways to the Globex trading platform on local deployments in order to directly provide prod environment-like conditions for engineers and speed up team's SDLC by up to 20%
- Engineered a system of three daemons voting on primary and backup state of gateways through TCP connections in Java to maintain integrity of the platform in case of a gateway failure
- Slashed regression tests runtime by developing program able to evenly split up tests across AWS EC2 instances

### Monaco Informatique Service – Monaco

Jun 2018 – Jul 2018

#### Machine Learning Intern – Research & Development

- Built a financial receipt classifying tool to automate administrative tasks using Computer Vision (OpenCV)
- Created reusable Python scripts to perform data preparation (*text cleaning, categorical encoding ...*) for Natural Language Processing, supervised and unsupervised Machine Learning tasks

## PROJECT EXPERIENCE

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### Peer Minutes – Ann Arbor, MI

Apr 2019 – Present

- Designed, developed and deployed a student-to-student web platform to provide short tutoring sessions in order to remedy CS office hours with 3+ hours wait times and improve student academic support
- Developed 8000+ lines of Node.JS (RESTful server APIs, NoSQL Firestore database), payment service (Stripe), front-end (React) and HTML/CSS to create a scalable and responsive user experience
- Led 35 interviews with students and professors to scope problem, collect feedback and iterate on product
- Placed in top 10 out of 100+ as the only undergrad team in the Michigan Business Challenge and earned \$3,800

### Multidisciplinary Design Program, ProQuest Medical AI – Ann Arbor, MI

Jan 2019 – Dec 2019

- Delivered a medical Named Entity Recognition web service for pharmaceutical companies and researchers to optimize FDA compliance search for ProQuest clients as part of multidisciplinary of seven students
- Built a bidirectional LSTM-CRF model for PubMed document tagging using ELMo embedding and PyTorch achieving 87% recall and 83% precision on medical corpuses
- Integrated the NER model with a Flask + React web app supporting ProQuest's documents search engine

## ADDITIONAL EXPERIENCES

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- Placed 2<sup>nd</sup> at the Honda Mobility Hacks and 3<sup>rd</sup> at the CME Group intern hackathon
- Competed as part of the Michigan Hyperloop Design Team for the 2018 SpaceX Hyperloop Competition
- Other Personal Interests: skiing, intramural sports, Christopher Nolan movies, road trips, ukulele