

SASHA LAMOT

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EDUCATION

UC BERKELEY- Computer Science BA

Graduation May 2025

Coursework includes: CS 170 - Efficient Algorithms, CS188 - AI, CogSci131 - Neural Networks, CS186 - Database, CS161 - Computer Security, CS70 - Discrete Mathematics and Probability Theory, CS 61C - Computer Architecture, CS 61B - Data Structures, CS 61A - Computer Programs, Data 100 - Data Science, EECS 16A - Designing Information Devices and Systems, UGBA88 - Data and Decisions in Business, Math - Calculus & Linear Algebra

International School of Brussels - International Baccalaureate (IB) Bilingual Diploma (Points 44/45) **Belgium** June 2021

PROFESSIONAL EXPERIENCE

Apptweak (ASO Tool of the Year 2021) - App Store Optimization (ASO)

Jun - Aug 2024 | Brussels, Belgium

Software Engineer Intern

- A leading ASO software for app companies (King, Paypal, Booking.com, etc.) tracking **installs, keywords, ads**, etc.
- Implemented and deployed **faster data retrieval (25x more efficient)** system with **~100 million rows of data per day** via **database migration** from **Redshift** to **Clickhouse** and optimizing **database structure** and insertion mechanism

UC Berkeley Engineering Dept - Jadoo Technologies

Fall 2023 - Current | Berkeley, California

Software Engineer & Tech Lead to Dr. Waqas Khalid Lab

- Leading a team of 8 to create software to facilitate experiments on cutting edge **nanotech** research in **e-beam lithography**
- Built a **frontend web-interface and backend** to simulate and run e-beam lithography from anywhere
- Created connections between **web-interface**, **Arduinos** and **Picomotors**, **designed an algorithm** to **increase efficiency of the lithography exponentially** using multiple electron beams at once, created equations for real time calculation of electron beam focusing lens, **led team** from **early development** to **deployment** and use

IMEC (world-leading R&D and innovation hub in nanoelectronics and digital technologies) **Jun - Aug 2023 | Gent, Belgium**

Software Engineer Intern

- Worked collaboratively with researchers to **optimize data processing pipeline** for artificial nanopore experiments
- Designed pipeline to facilitate the trajectory from **raw data to analysis** to usable data for scientist, using **Microsoft Azure**
- Created and implemented **noise detection and mitigation algorithms** such as **CUSUM, mean drift, KDE plots**, to be used on **~10 million data points** per experiment

Plan-it App

2018-2020 | Brussels, Belgium

Co-Founder & Chief Technology Officer

- Co-founded a personalized **ed-tech** study-plan app to optimize student work & study time for the International Baccalaureate
- Designed and coded **front-end** layout using **HTML/CSS** and **back-end** using **PHP** and **mySQL** databases
- Website included secure **login and sign-up** pages, storage and retrieval of data using **phpMyAdmin** as a hosting service
- Created business model including plans for scalability, recruited a team of 4, contacted **IBO representatives**

PROJECTS

Machine Learning & Reinforcement Learning - Neural Networks

2024 Berkeley, California

- Designed and coded NN with **Pytorch** for; number recognition, language translation, function approx. and game simulation
- Used methods such as **Deep Q-learning, Perceptrons, Value Iterations, Epsilon Greedy**

Gitlet

2022 Berkeley, California

- Built terminal version control system similar to **github** with features such as **add, commit, log, merge, status, branch**, in Java

Attax

2022 Berkeley, California

- Strategy board game where player can play against **AI** created by using **Alpha-beta pruning** on a **game tree**

Remote Data Collection Module

2020-2021 Goa, India

- Designed, coded, and built remote soil data (Air and Soil Temp. & Humidity, Sunlight) collection system data with **Arduinos**
- Built radio wave communication and made **data streaming algorithm** to parse data and stored it in **MySQL database**
- Made **GUI in Java** allowing graphing and displaying of data, **save and import**, communication with database

SKILLS

Skills: Python, Java, Ruby, C/C++, SQL, x86, HTML/CSS, Scheme, RISC-V | Pytorch, Kubernetes, Docker, API Development, AWS, Databases (PostgreSQL, Clickhouse, MySQL, Redshift), Pandas & Numpy, Git, Linux | Algorithms Theory, Complexity Analysis, Research, Frontend, Backend, Fullstack, UI/UX Design, Applied Math, Electrical Engineering, Computer Architecture, Regex | Leadership, Public Speaking, Photography, Photoshop

Languages: English, French, Dutch (Intermediate), Hindi (Beginner)

ARTS & SPORTS & VOLUNTEER

- **Musician** - (play the guitar, piano and trumpet), band leader, music composer
- **Actor** - Acted in four plays/musicals + 1 short film during 2 academic years at school
- **Cross-country runner / Tennis / Rock Climbing Club Berkeley** - represented my school in cross-country
- **Student Leadership Team** - 12th Grade Class Representative