SASHA LAMOT

+1 (341) 766-8730 · sashalamot@gmail.com · sashalamot@berkeley.edu · github.com/sashalmt · sashalmt.github.io

EDUCATION

UC BERKELEY- Computer Science BA   **Graduation May 2025**

Key coursework: Efficient Algorithms, Intro to AI and ML, Neural Networks, Database System , Computer Security, Discrete Mathematics and Probability Theory, Computer Architecture, Data Structures and Algorithms , Data Science and Statistics, Designing Information Devices and Systems, 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

- Worked on optimizing a leading ASO software tool for app companies (King, Paypal, Booking.com, etc.) by **reducing loading time** on the web-app's flagship **market intelligence** tracker
- Implemented and deployed **faster data retrieval (25x more efficient)** system with ~**100 million rows of data per day** via **database migration, structure optimization** and faster insertion and retrieval 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 remotely
- 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

Forest Health Tracker   **2024 Berkeley, California**
- Building software to **rate and track forest health** by using **deep-learning for tree detection** and in-situ sensors to track forest floor conditions; can be used in wildlife restoration settings to automate tracking of forest health and regrowth progress

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)