

# SODGEREL MANDAKHNARAN

Software Engineer

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## SUMMARY

A data-driven Software Engineer, experienced in AGILE development and armed with a solid academic foundation from New York University Abu Dhabi. Background spans across Software Development, Cybersecurity, and Networks.

## SKILLS

**Languages:** Python, Dart, C++, C, JavaScript/TypeScript, Java, HTML, CSS, Arduino, Assembly, SQL, Bash, Latex.

**Technologies:** Flutter, MongoDB, Mongoose, Node.js, Express, React.js, MySQL, PostgreSQL, Git, JUnit, JaCoCo, Linux, Wireshark, Firebase, AppWrite, Microsoft Azure ML, Hugo, Flask.

**Other:** Solidworks, Unity 3D, Adobe Illustrator, Adobe Photoshop, Canva, Final Cut Pro, Logic Pro.

## EDUCATION

9/2019 – 5/2024  
100% scholarship

**New York University Abu Dhabi**  
**BSc. in Computer Science with Minor in Interactive Media**

GPA: 3.93

**Relevant Coursework:** Data Structures, Algorithms, Computer Systems Organization, Operating Systems, Computer Networks, Computer Security, Software Engineering.

**Activities:** Computer Science Peer Tutor, Captain of Brazilian Jiu-Jitsu team, Resident Assistant

## EXPERIENCE

4/2021 – 9/2023

**Software Engineer I**

ORDA Wealth

- Spearheaded development of a mobile application from scratch with 800+ monthly users.
  - Resolved 100+ user stories & tickets across 18 sprints, contributing to enhanced software quality.
  - Implemented 3 REST APIs and coded 5 cloud functions in the backend environment adding features such as payment.
  - Authored 6 critical database scripts, streamlining operations and elevating productivity by over 30%.
- Flutter / AppWrite / Node.js / Express / Firebase

6/2022 – 7/2022

**Research Assistant**

ComNets Lab

- Verified possibility of using ultrasonic beacons to make internet accessible to third world countries.
  - Developed and tested a cutting-edge mobile application that captured and analyzed sound waves, enabling real-time monitoring of ultrasonic waves.
  - Deployed a scalable Python codebase with Flask, enabling efficient analysis of recorded audio; achieved a 40% reduction in processing time by leveraging multi-threading techniques.
- Flutter / Python / Flask

1/2021 – 4/2021

**Software Engineer Intern**

ORDA Wealth

- Consolidated company data and built 2 static websites for the company by learning the tool from scratch.
  - Initiated the development of an alternative investment mobile application by leading a team of 2 interns.
- Hugo / Linux / Flutter

## PROJECTS

9/2023 – 12/2023

**GPTuner**

Team of 1

- Orchestrated the development, construction, and testing of a highly efficient end-to-end pipeline that crowdsourced data for language model fine-tuning.
  - Added 4 important features including authentication, prompt submission & demonstration.
  - Developed a comprehensive user engagement and data validation strategy for a reward system, resulting in a 40% increase in valid user submissions and a 25% boost in overall user engagement metrics.
- Flutter / MongoDB / Mongoose / Node.js / Express

9/2023 – 12/2023

**CareVoice**

Team of 4

- Executed a full-stack web development project using Agile methodologies, including Extreme Programming and SCRUM, resulting in improved project management efficiency, timely milestone completion, and a 60% reduction in development cycle time.
  - Engineered a robust REST API and highly scalable NoSQL database, empowering seamless user authentication, efficient survey management, and streamlined feedback processing. Decreased response time by 35%.
  - Integrated quality attributes such as security, reliability, and scalability through data encryption, redundancy, and optimizing server architecture; achieved 99% uptime and increased system performance by 25%.
- MongoDB / Mongoose / Node.js / Express / React.js

10/2021 – 10/2021

**Virtual File System**

Team of 1

- Designed a Linux file system simulation in C++ by utilizing OOP and Algorithm design principles.
  - Coded 5 different data structure classes from scratch such as linked list, stack, and trees.
  - Analyzed the performance of different sorting algorithms and integrated the most efficient one.
- C++ / Linux

## LANGUAGES

English - proficient, Japanese - intermediate, Mongolian - native