

# Josiah Chua

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## EDUCATION

**National University of Singapore** Singapore  
Expected May 2024  
*Bachelor of Engineering (Hons.) in Electrical Engineering*

- **GPA:** 4.77/5 (*Highest Distinction*).
- **Relevant Studies:** Machine Learning, Applied Mathematics, Statistics, Feedback Control, Signal Analysis and Innovation and Design.

**PSL Research University** Paris, France  
Feb 2023- Jul 2023  
*Study Abroad, NUS Overseas College (Paris)*

- **Details:** NUS's flagship entrepreneurship program combines practical experience in innovative start-ups with entrepreneurship courses, equipping students with the tools to start their own businesses.
- **Relevant Studies:** Market Research, Business Modelling and Strategy and Public Speaking.

## WORK EXPERIENCE

**ThrustMe** Paris, France  
Feb 2023- Jul 2023  
*Electronics Intern*

- Engineered electromagnetic compatibility test benches to enhance product quality testing.
- Designed a proprietary retarding field energy analyzer to expand ThrustMe's scientific tools product line.

**Finantier** Singapore  
May 2022- Aug 2022  
*Data Science Intern*

- Conducted credit portfolio analysis through roll rate examination, assessing transitions between credit states to evaluate borrower behavior for credit default forecasting and data engineering.
- Performed quantitative and qualitative analysis on alternative data and utilized it to build 2 new machine learning models for Finantier's credit risk prediction service, improving accuracy by 35%.
- Constructed data pipelines to streamline data acquisition, feature extraction, and model development, optimizing efficiency and reliability.
- Established a collaborative partnership with a client to engineer a custom data collation product and developed its backend micro-service architecture to facilitate data aggregation and analysis.

**Alpha Electrics** Singapore  
Dec 2021- Apr 2022  
*Research & Development Intern*

- Collaborated with a team of 4 Deep-Tech researchers to develop a novel wireless power transfer system.
- Conducted in-depth research on feedback control algorithms for the wireless power transfer system.
- Created power electronic models of the wireless power transfer system using industry-grade software to enable efficient simulation and evaluation of control system designs.
- Designed and implemented a robust control system using C++ and BLE protocols, reducing system response time by over 25%.

**Biotrack** Singapore  
Jun 2021- Nov 2021  
*Research & Development Intern*

- Spearheaded an independent project to predict blood pressure levels from physiological data to enhance Biotrack's wearable device capabilities.
- Conducted an extensive literature review on state-of-the-art blood pressure prediction methods.
- Built a robust data pipeline for feature extraction from an open-source medical database MIMIC-III.
- Evaluated various machine learning and deep learning models for blood pressure prediction, contributing to the development of Biotrack's predictive algorithms.

## LEADERSHIP EXPERIENCE

**NUS.AI** Singapore  
Jan 2022- Nov 2022  
*Founder & Secretary*

- Co-founded NUS.AI, with over 300 members, dedicated to fostering AI and machine learning skills and introducing AI to the NUS student community.

- Forged a strategic partnership with AI Singapore (AISG), a government entity, to access valuable learning resources and support.
- Demonstrated leadership by organizing bi-weekly workshops and talks that allow members to explore AI applications in academia and industries.

## **SKILLS, ACTIVITIES & INTERESTS**

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**Languages:** Fluent in English and Chinese.

**Programming Languages:** Proficient in C, C++, C#, Python.

**Machine Learning & Deep Learning:** Proficient in PyTorch, TensorFlow, and Scikit-learn for Natural Language Processing, Computer Vision, and Statistical Models.

**Database:** Proficient in SQL.

**DevOps/MLOps:** Proficient in GitLab, GCP, Kubernetes, and Docker.

**Interests:** Basketball, Soccer, Wine, Machine Learning, Chess.