

Zining Zhuang

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Address: 199 Taikang East Road, Yinzhou District, Ningbo, Zhejiang, China

PROFESSIONAL SUMMARY

With a solid foundation in applied mathematics and hands-on research in machine learning, I have cultivated strong skills in data modelling, statistical analysis, and predictive algorithms. My internships in microelectronics and materials science further strengthened my ability to extract insights from complex datasets and visualize them for decision-making. I now seek to advance my expertise in data analytics, aiming to integrate technical rigour with real-world problem solving, and ultimately contribute to building intelligent solutions that bridge research, business, and society.

EDUCATION

UNIVERSITY OF NOTTINGHAM NINGBO CHINA

BSc Mathematics with Applied Mathematics

Ningbo, China

Sep 2022 - Jun 2026

- Major: Applied mathematics, Statistics, Business Economics, Analytical and Computational Foundations, Differential Equations and Fourier Analysis, Mathematical Analysis.

RESEARCH EXPERIENCE

AI IN MATHEMATICAL MODELLING

Jun 2025 - Jul 2025

- Developed models in Python for population dynamics of snowshoe hare and lynx.
- Compared classical Lotka–Volterra equations with recurrent neural networks and LSTM models.
- Produced a paper as first author: Population Dynamics Modelling: Comparing Classical Lotka–Volterra Equations with Recurrent Neural Networks and Long Short-Term Memory (JCB-2025-0343), submitted to Journal of Computational Biology.

MACHINE LEARNING AND BIG DATA MODEL IN WATER/NUTRIENT RESIDENCE TIME ANALYSISIG

Jun 2024 - Aug 2024

- Pre-processed ecological data using Python and R.
- Conducted hierarchical clustering, seasonal trend analysis, and random forest modelling.
- Designed upstream-downstream relational diagrams to visualize data.

JOB EXPERIENCE

SHENZHEN SDUOFO NEW MATERIALS TECHNOLOGY CO., LTD.

Shenzhen China

Data Analyst Intern

Jul 2025 - Aug 2025

- Built predictive models to estimate material performance under new formulations.
- Produced executive-level dashboards using Tableau and Power BI to monitor production and quality indicators.
- Conducted raw materials impact analysis to support procurement and substitution strategies.

SHENZHEN QIANHONG MICROELECTRONICS CO., LTD.

Shenzhen China

Data Analyst Intern

Jan 2025 - Feb 2025

- Supported DOE experiment design and optimization for semiconductor processes.
- Conducted Quality & Reliability Analysis on high-temperature and electromigration test data, estimating product MTTF.
- Performed cost analysis of product lines to identify cost drivers and efficiency opportunities.

ADDITIONAL INFORMATION

- Rewards:** Meritorious Winner (S Award), Mathematical Contest in Modeling (MCM), USA (May 2025)
- Professional Skills:** Proficient in MS Office, such as Word, Excel, PowerPoint. Strong communication and customer service skills. Familiar with digital media and content creation.
- Languages:** English (Fluent), Mandarin (mother tongue).

2024-09-01

Dear **Zining ZHUANG**,

This letter is to confirm that you had completed the summer internship for a research project "Machine learning and big data model in water/nutrient residence time analysis" from June to August in 2024. During the period, you have made great contribution to the data organisation and analyses with high quality outputs. Your supports to the research project are much appreciated.

Best wishes,



Dr Meili Feng
Associate Professor
School of Geographical Sciences
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2025

Interdisciplinary Contest In Modeling®

Certificate of Achievement

Be It Known That The Team Of

Linx Yang
Zining Zhuang
Shiyue Li

With Faculty Advisor

Jian Yang

Of

University of Nottingham

Was Designated As
Successful Participant



Benjamin J. Galluzzo, Executive Director



Kayla Blyman, Contest Director



AMS

ASA

informs

MAA

siam

实习证明

兹证明庄子凝，性别女，出生日期2004年4月25日，自2025年07月28日至2025年至08月29日在我司技术部实习，参与数据分析工作。

在实习期间，庄子凝展现出扎实的专业基础和积极进取的工作态度。她对待各项任务认真细致，具备较强的学习能力和执行力，能够高效完成所分配的工作。在实际工作中，她善于思考，主动提出建设性意见，体现出良好的职业潜力。她遵守工作纪律，责任心强，始终以高度的敬业精神投入岗位职责，赢得了同事们的广泛认可和信赖。

基于其出色的表现，我们对庄子凝在实习期间的综合能力给予充分肯定。我们非常乐意推荐她进入更广阔的发展平台，并诚挚期待未来有机会再次携手合作。

特此证明。

公司：深圳市乾鸿微电子有限公司

地址：深圳市宝安区沙井街道坐岗社区坐岗大道文体中心商业楼1栋611

证明人签名：

证明日期：2025年8月29日

Internship Certificate

This is to certify that Zining ZHUAG, female, born on April 25, 2004, conducted an internship in the technical department and participated in data analysis work at our company from July 28, 2025 to August 29, 2025.

During her internship, Zining ZHUANG demonstrated a solid professional foundation and an enterprising work attitude. She was meticulous in handling all tasks, had strong learning ability and execution power, and could complete the assigned work efficiently. In practical work, she was good at thinking and actively proposed constructive suggestions, demonstrating excellent professional potential. She abided by work discipline, had a strong sense of responsibility, and always devoted herself to her job duties with a high level of professionalism, earning the wide recognition and trust of her colleagues.

Based on her outstanding performance, we fully affirm her comprehensive ability during the internship. We are very willing to recommend her to a broader development platform and sincerely look forward to having the opportunity to work together again in the future.

Company Name: Shenzhen Qianh Micro-e Co., Ltd.

Address: No. 611, Building 1, Cultural and Sports Center, Tonggang Avenue, Tonggang Community, Shajing Subdistrict, Bao'an District, Shenzhen City

Authorized Signature:

Date: August 29th, 2025



实习证明

兹证明庄子凝，性别女，出生日期2004年4月25日，于2025年01月10日至2025年至2月12日在我司技术部实习，参与数据分析工作。

在实习期间，庄子凝表现出了良好的专业素养和工作态度，方面展现出了较强的能力，能够快速适应工作环境，与团队成员保持良好的沟通与协作，对工作认真负责，得到了同事和领导的一致好评。

我们对庄子凝在实习期间的表现给予高度评价，我们愿意为其提供进一步的职业发展机会，并期待未来有机会再次合作。

特此证明。

公司：深圳市乾鸿微电子有限公司

地址：深圳市宝安区沙井街道坐岗社区坐岗大道文体中心商业楼1栋611

证明人签名：

证明日期：2025年2月15日

Internship Certificate

This is to certify that Zining ZHUAG, female, born on April 25, 2004, conducted an internship in the technical department and participated in data analysis work at our company from January 10, 2025 to February 12, 2025.

During the internship period, Ms. ZHUANG demonstrated exceptional professionalism and a strong work ethic. She quickly adapted to the work environment and maintained effective communication and collaboration with team members. Her dedication, responsibility, and outstanding performance earned consistent praise from colleagues and supervisors.

We highly commend ZHUANG's contributions and achievements during her internship. We are pleased to offer her further career development opportunities and look forward to potential collaboration in the future.

Company Name: Shenzhen Qianh Micro-e Co., Ltd.

Address: No. 611, Building 1, Cultural and Sports Center, Tonggang Avenue, Tonggang Community, Shajing Subdistrict, Bao'an District, Shenzhen City

Authorized Signature:

Date: February 15th, 2025

