

Chengcheng Han

✉ Han@chengcheng.org • in Chengcheng-Han-27b77a348 • 🗣 Noise477

Summary

BSc (Computer Science & Information and Technology Management) with hands-on experience in LLMs, AI models, ASP.NET Core, Docker, AWS, and distributed systems. Lead developer for web-based GUIs for composing and grading individualised multiple choice assessments. Designer of SVG-based optical mark recognition sheets for these assessments. Published researcher (FIE 2025, TALE 2025) and Teaching Assistant for 300+ students.

Skills

Languages: C#, Java, JavaScript, HTML, SVG, Python, SQL, C

Databases: SQL Server, MongoDB

Frameworks & Tools: Git, ASP.NET Core, Docker, AWS, REST API Development, IIS Web Server, Nginx

Education

The University of Auckland

BSc in Computer Science & Information and Technology Management

Completing Nov 2025

Work Experience

The University of Auckland

Teaching Assistant

Jul 2025 – Present

- Tutor for COMPSCI 335 - Web Programming and Distributed Services
- Marker for COMPSCI 335 - Web Programming and Distributed Services

dividni.com

Software Engineer

Dec 2024 – Present

- Web-based GUIs for composing and grading individualised multiple choice assessments
- SVG-based optical mark recognition sheets
- Docker containerization for secure sandboxing

Domino's Pizza

Delivery Driver

Jun 2022 – Jan 2023

- Pizza delivery and in-store cashier

Projects

dividni.com

2025

- Built an easy-to-use online OMR sheet generator in **SVG**, supporting multiple languages and customizable for individualized assessments.
- Developed a fast online scan processing system in **C# (OpenCvSharp, PDFiumCore)** with rotation/scale correction and automated validation of optical marks.
- Built an online composition system for individualized assessments in **ASP.NET Core & JavaScript**, secured with **Docker-based sandboxing** (3-layer resource isolation) that enables non-IT staff to create versioned OMR exams.
- Deployed on **Ubuntu Server** using **Nginx**.
- Actively used across multiple courses at the University of Auckland; described by the Director of Teaching and Learning as “fills a critical gap for us”.

Faultless Document Reviewer

Tonkin & Taylor

2025

- Built a lightweight **CLI** that pre-reviews engineering **Word** documents against configurable rules; integrated **Google Gemini** for AI-driven analysis.
- Implemented a **rule engine** (JSON rules) with categories/weights and confidence thresholds, plus multi-stage filtering (redundancy & trivial-issue suppression) to reduce comment overload.
- **Annotated Word output** with highlights and priority-labelled comments; generated a summary page; logged runs to **CSV** or a **database** for analytics.
- Added **Langfuse** integration for prompt tracing.
- Provided an optional **Word Add-in** UI that shares the same analysis engine as the CLI.

Power BI Sales & Market Basket Analysis

2024

- Developed an interactive **Power BI dashboard** to visualize sales data and market trends.
- Implemented and compared multiple sales forecasting models, including **Linear Regression**, **Random Forest**, **SARIMA**, and **XGBoost**, using **Python**.
- Conducted **market basket analysis** using the **Apriori algorithm** to identify product associations and inform marketing strategies.
- Created custom data visualizations within Power BI using **Matplotlib** and **Seaborn**.

NZSL Learning Web App

2024

- Built an **ASP.NET Core** REST API powering the NZSL platform.
- Designed & built a **HTML/CSS/JavaScript** client.

Podcast Web Application

2024

- Built a web application for podcasts using **Python** and **Flask**, focusing on a clean and maintainable architecture.
- Implemented the **repository pattern** to abstract data persistence logic, allowing for interchangeable in-memory and database-backed storage.
- Built a user-facing interface with **HTML/CSS** for browsing, searching, and managing personal podcast playlists.

Research

Accepted at IEEE FIE 2025

A Study and Implementation of Customizable Optical Mark Recognition Sheets for Assessments

2025

Accepted at IEEE TALE 2025

On Securing Online Creation of Isomorphic Questions

2025

Submitted to IEEE EDUNINE 2026

Automating Identity Verification in Exams: A Low-Cost, Privacy-Preserving Approach

2026

Submitted to IEEE EDUNINE 2026

Can We Design AI-Resilient Programming Assessments? Reflections from a Front-End Web Development Course 2026

Membership

IEEE: Student Member

IEEE: Education Society Member

Community Engagement

Museum of Transport and Technology (MOTAT), Auckland

STEM Fair Volunteer

2025

- Volunteered to guide children in exploring STEM activities and new technologies.
- Communicated science concepts to the public in an engaging way.

The University of Auckland

University Open Day Volunteer

2025

- Assisted at the Computer Science area, focusing on cybersecurity topics and demonstrations.
- Explained concepts in network security to prospective students and visitors.

References

Available upon request.