

# CAI WEIYU

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Portfolio: [caiweiyu.com/resume\\_dev](http://caiweiyu.com/resume_dev) | GitHub: [github.com/caiwy84](https://github.com/caiwy84) | Landbox: [landbox.sg](http://landbox.sg)

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## PROFILE

**Innovative Senior Developer & Certified Scrum Master** with 10+ years in **full-stack development**, **cloud solutions**, and **game engines**. Skilled in designing scalable architectures, mentoring developers, and boosting performance. Strong expertise in React, TypeScript, Node.js, Three.js, AWS, C#, Python, and Unity.

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## WORK EXPERIENCE

### Founder & Lead Developer - Yilumi Studio, Singapore

Mar 2020 - Present

- **Architect & Developer of Landbox.sg**, a **digital twin web app** for real estate visualization.
  - Built a scalable **full-stack system** using **React, Next.js, Three.js, Node.js, and AWS**.
  - Designed **secured API gateways, IAM policies, and DNS routing** to ensure data integrity.
  - Implemented **CI/CD pipelines, DevOps, and containerization** for efficient deployment.
  - **Mentored** other developer.
  - Secured HDB and PMO recognition, engaging in high-level discussions on digital twin innovation.
- **Architect & Developer of SG 3D Map**, a public accessible **geospatial map platform**.
  - Built a custom **Vector Tile server** (PostGIS) using OSM, OneMap, HDB data.
  - Established complex **ETL data pipeline** to transform map data.
  - Integrated Three.js + MapLibre for rendering with **RESTful APIs** for location queries.
- **Architect & Developer of Wonder Earth App**, a high-scale **mobile product**, leading to 5M+ downloads, 1M+ users and \$600K+ revenue.
  - Managed **full development lifecycle**, from planning to launch.
  - **Navigated regulatory hurdles** to achieve success in China.
  - **Recognition**: HuaWei Gallery Editor's Choice (Nov 2022).
  - **Tech Stack**: Unity 3D, C#, Android, iOS, MangoDB, Microservice, CDN, Restful APIs.

### Senior Software Developer – Bandai Namco Studio, Singapore

Aug 2016 - Feb 2020

- Developed core **gameplay** and **engine** systems for AAA game titles.
- Led **Scrum planning & project estimation**, ensuring efficient **Agile execution**.
- Bridged communication between **business stakeholders & technical teams**.
- Provided **mentorship** and technical guidance to junior developers.

### Software Developer – Autodesk, Singapore

Mar 2013 - Aug 2016

- Built core features for **Maya** using C++.
- Led automation testing (Jenkins) & **CI/CD implementation**, reducing regression failures.
- Implemented **high resolution UI system** for Maya.

### Software Developer – Lucasfilm, Singapore

May 2010 - Mar 2013

- **DevOps & Security**: Established automated backup & asset management pipelines.
- **Operational Efficiency**: Developed tools improving production workflows in VFX and animation.

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## CERTIFICATION

### Professional Scrum Master I (PSM I)

Issuer: Scrum.org

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## TECHNICAL SKILLS

- **Programming Languages:** C#, Python, Typescript, C++, Java, Javascript
  - **Web Full Stack:** React, Node.js, Typescript, Next.js, Three.js, R3F, HTML, CSS, Modern Build Frameworks. RESTFUL APIs
  - **DevOps:** Docker, Nginx, Automation test, CI/CD.
  - **Database:** MongoDB, MySQL, Firebase Firestore.
  - **Mobile:** React Native, Android, iOS
  - **Cloud:** AWS, Google Cloud, Firebase, CDN.
  - **Security:** AWS IAM, Secured API gateway, DNS Routing, Nginx
  - **Game Engine:** Unity, Unreal Engine.
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## LEADERSHIP & MANAGEMENT

- **Technical Leadership:** Led development teams for web & game projects.
  - **Project Execution:** Applied Agile, Scrum, and risk management principles.
  - **Mentorship:** Trained junior developers in coding best practices.
  - **Stakeholder Engagement:** Communicated effectively with executives and agencies.
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## EDUCATION

### Master of Science in Computer Science

Jul 2009 - Jun 2011

Nanyang Technological University

- GPA: 4.50 / 5.00

### Bachelor of Engineering in Bioengineering

Jul 2003 - Jun 2007

Nanyang Technological University

- 2nd Upper Honors
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## ADDITIONAL INFORMATION

- **Languages:** English, Chinese
- **Community:** Grassroots leader (2014 - 2019)