

William Huanshan Chuang

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Vocation / Objective

Lifelong Catholic formed in the Jesuit and Catholic university tradition, currently an Auxiliary Member of the Sovereign Military Order of Malta (Western Association, Arizona Area). My vocation is to live *Tuitio Fidei et Obsequium Pauperum*—the defense of the faith and service of the poor—through structured formation, stable service to the sick, and faithful support of the Church within the life of the Order of Malta.

Education

- **University of Arizona**, Tucson, AZ *M.S. in Mathematics, 2025*
Graduate coursework in cryptographic theory, hyperbolic geometry, and deep learning. Research at the interface of symbolic dynamics, geometry, and secure AI architectures. Graduate Teaching Assistant for College Algebra and Calculus; volunteer webmaster for the Tucson Math Circle.
- **San Francisco State University**, San Francisco, CA *M.A. in Mathematics, 2022*
Thesis on Hausdorff dimension of limit sets of Schottky groups. Instructor for Precalculus and fourth-hour Calculus; Teaching Assistant for large Calculus I–II sections.
- **University of San Francisco**, San Francisco, CA *B.S. in Mathematics (Honors), 2018*
Minor in Computer Science; graduated *cum laude* with a 3.88 major GPA. Dean’s Honor Roll (multiple terms); inducted into Pi Mu Epsilon (U.S. Mathematics Honor Society); President’s Ambassador.
- **Pennsylvania State University**, University Park, PA *MASS Scholar, 2017–2018*
Mathematics Advanced Study Semesters (MASS) Ph.D.-preparatory program with tuition and internal scholarships. Completed advanced tracks in knot theory, functional analysis, and elliptic functions & curves.
- **National Dong Hwa Univ. & National Taiwan Univ.**, Taiwan *Physics Studies, 2007–2014*
Early university training in theoretical and mathematical physics. Ranked 1/55 in the NDHU physics cohort; four-time recipient of the Dean’s Honor Prize.

Catholic & Service Involvement

- **Sacramental Life & Formation:** Baptized and received First Holy Communion (1996) at the Parish of the Sacred Heart of Jesus, Shulin, Archdiocese of Taipei. Educated at St. Ignatius High School (Jesuit), where a “men for others” ethos shaped early faith and service.
- **Liturgical Service:** Altar server and liturgical volunteer at Fu Jen Catholic University and local parishes (1998–2004), including Holy Week liturgies; received a certificate of appreciation from Fu Jen’s Religious Guidance Center.
- **Service to the Sick and Disabled:** Through St. Ignatius High School, completed yearly hospital service in Taipei (2000–2006), feeding elderly patients and children with cerebral palsy and other disabilities, one person at a time.
- **Current Service to the Poor:** Volunteer at Poverello House in Tucson (2025–present), assisting with meal service and hospitality for the homeless and materially poor.
- **Order of Malta:** Auxiliary Member, Order of Malta, Western Association (Arizona Area, 2025–present). Participates in the Order’s spiritual formation and service to the sick and the poor; seeking Provisional Knighthood to deepen this vocation under obedience to the Church and the Order.
- **Knights of Columbus:** Fourth Degree Knight (2025–present), St. Thomas the Apostle Parish, Tucson. Assists with parish blood drives, men’s fellowship events, and parish dinners in support of charitable works.
- **Ongoing Spiritual Formation & Safeguarding:** Regular study of the Catholic Bible, catechetical texts, and works associated with Opus Dei and the Order of Malta. Completed *Protecting God’s Children*® (VIRTUS, 2025) and University of Arizona Information Security Awareness training (2023).

Professional & Teaching Experience

- **Founder & Principal Researcher, Logarchéon Inc. (Marana, AZ)** *2025–present*
Founded and operate an IP-first research corporation developing interpretable, certifiable transformer systems and geometry-native computation frameworks. Lead inventor on multiple U.S. provisional patent applications in metric-invariant arithmetic, secure neural architectures, and post-quantum cryptographic design. All work remains unclassified and is conducted with attention to ethical use of technology, human dignity, and compliance with U.S. academic and regulatory standards.
- **Graduate Teaching Assistant / Instructor in Mathematics** *2019–2025*
University of Arizona & San Francisco State University. Taught and supported courses in College Algebra, Precalculus,

and Calculus I–II (sections up to 125+ students). Designed problem sets and labs, led discussion sections, graded common finals, and held regular office hours. Known for patient, clear explanations and steady availability to students.

- **Additional Academic Service**

Tutor and outreach volunteer for the Tucson Math Circle (2023–2024); Mathematics Enrichment Program assistant at the University of San Francisco (2017).

Selected Honors & Distinctions

- Multiple Dean’s Honor Roll distinctions at the University of San Francisco; graduated *cum laude* in mathematics (honors major).
- Mathematics Advanced Study Semesters (MASS) scholarship and internal awards at Penn State for competitive Ph.D.-level study.
- Ranked 1/55 in the NDHU undergraduate physics cohort with repeated Dean’s Honor Prizes.
- President’s Ambassador Medal (University of San Francisco, 2018) recognizing service and representation of the university.
- Numerous first prizes in high-school physics and science fairs in Northern Taiwan, alongside character and conduct awards from St. Ignatius High School.

Skills

- Strong analytical and mathematical reasoning; experience connecting abstract theory to concrete problems.
- Teaching, mentoring, and public-speaking experience in diverse classroom settings.
- Programming and technical tools: Python, C/C++, Java, R, shell scripting, and L^AT_EX; use of PyTorch, NumPy, and related scientific libraries for research.
- Cross-cultural experience living and studying in Taiwan and the United States; fluent in English and Mandarin Chinese.
- Habit of discretion, careful documentation, and respect for institutional and Church procedures.