

Matthew Wang

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Education

Princeton University, Princeton, NJ

Bachelor of Science and Engineering in Computer Science

May 2016

Certification in Teacher Preparation in Mathematics

May 2017

GPA: 3.7, Magna Cum Laude

Coursework included:

CS: Theory of Algorithms, Machine Learning [*Python*], Functional Programming [*OCaml*], Computer Architecture, Artificial Intelligence [*Java*], Information Security [*Java*], Reasoning about Computation, Advanced Programming Techniques [*Javascript, Python, Awk*], Programming Systems [*C, Assembly*], Algorithms and Data Structures [*Java*], General Computer Science [*Java*].

Math: Strategy and Information (Game Theory), Formal Logic, Graph Theory, Combinatorial Mathematics, Probability and Stochastic Systems, Linear Algebra, Advanced Vector Calculus.

Teacher Preparation: Educational Psychology, Student Learning and Methods for Teaching, Education: Theory and Practice, Practice Teaching.

Other: Christian Ethics and Modern Society, Business Ethics and Modern Religious Thought, Who Wrote the (OT) Bible?, The Bible as Literature, Jazz Theory/Composition, Music Theory

Greensboro Fellows Program, Greensboro, NC

Sept 2017 - May 2018

Coursework included: Christ in the Gospels, Survey of the Bible, Systematic Theology, and Ethics

Work and Volunteer Experience

Teaching

Bergen County Academies, Academy of Technology and Computer Science – CS Teacher, Hackensack NJ

September 2018 – June 2020 (Current)

- Taught HS computer science to 2 populations: ATCS students who concentrate in CS, and students in one of 6 other Academies.
- Year-long courses taught: Intro to Computer Science (ATCS 9th) [*Python, Java*], AP Computer Science (10-12th) [*Java*], C & Data Structures (10th) [*6502, C, Java*], Senior Capstone Project (12th).
- 1-Trimester electives taught: Intro/Intermediate Java (9th-12th) [*Java*], Intro to Assembly (10th) [*6502*], Intro to C (10th) [*C*], Artificial Intelligence (10-12th) [*Python*], Machine Learning (10-12th) [*Python*],
- Coach for CyberPatriot competition (National Air Force cybersecurity competition). Involved with running American Computer Science League (ACSL) competition. Ran the newly started A.I. Club.
- Summer Academy After Hours: 2-week camp for 4th-8th grade. Taught 3 intro programming courses: Python Chatbot, Scratch, and Java Games w/ Greenfoot

Hope Academy – “Fellow” Teacher (Part Time), Greensboro NC

August 2017 – June 2018

- Taught Algebra 1 to a small group of 8th graders.
- Co-taught 7th grade math, including pre-algebra concepts.
- Substituted for and occasionally co-taught 7th and 8th grade science (Earth Science).
- Ran the MakerSpace elective for 5th through 8th graders, with introductory programming elements.

Lawrence High School – Student Teacher, Lawrence NJ

February – May 2017

- Deliver and assist 9th and 10th grade classroom instruction in Algebra II and Geometry.

Private CS Tutor, Princeton NJ

September 2015 – May 2016

- Taught programming fundamentals in Scratch and Python to 8, 9, and 11 year-old homeschooled students.

Princeton Young Achievers (YWCA) – Tutor, Princeton, NJ

January – May 2015

- Provided after-school tutoring and care for low-income, low-performance students K-2nd grade.

Princeton University CS Department – CS Lab TA, Peer Tutor Princeton, NJ

February 2014 – May 2015

- Assisted students in introductory CS courses, teaching algorithmic concepts and helping debug Java code.
- Tutored undergraduates one-on-one for Intro CS, Algorithms, Physics, and Linear Algebra.

Daybreak Asia – Volunteer English Teacher, Princeton, NJ

June – August 2013

- Taught English in several summer camps across mainland China to children ages 6 to 18.

Software Development

TripAdvisor – Data Science Intern, Newton, MA

June – August 2016

- Collected and analyzed Search Engine Marketing data and developed new predictive models for customer value estimation. [*R, HQL*]
- Hackathon project: A dynamic roadtrip planning webapp using Google Maps and TripAdvisor APIs. [*AngularJS*]

Faithlife (Logos Bible Software) – Software Dev Intern, Bellingham, WA

June – September 2015

- Developed features for Proclaim church presentation software, contributing song file parsing and a Twitter “wall.” [*C#, JavaScript*]
- Winning Hackathon project: An inter-personal accountability Android app.

Army Research Labs – Research and Software Dev Intern, Adelphi, MD

June – September 2014

- Conducted Natural Language Processing research on using ML for diacritic restoration in MS Arabic. [*Java, Awk*]

ORSA Corp – Software Dev Intern, Aberdeen, MD

June – August 2012

- Developed visualization tool for weapons casualty simulation data. [*R, Visual BASIC*]

Other

Redeemer Classical Christian School – Web “Developer”, Kingsville, MD

June – August 2017

- Updated current school website CMS, designed a new website via Weebly, and managed related web presence.

Princeton Evangelical Fellowship – College Ministry Intern, Princeton, NJ

August 2016– June 2017

- Mentored university students through personal counseling and Bible study, both in individual and group settings.

Interests and Activities

- “Lindy Hop” swing dancing
- Strategic board games (e.g. Dominion, Catan, Pandemic, etc.)
- Music ministry, leading corporate worship
- Acapella music arrangement
- Christian ethics, philosophy, and history.
- Competitive “Super Smash Bros.”
- Princeton Christian Fellowship (2012-2017)
- Princeton Kindred Spirit A Capella – Tenor, Beatboxer, and Arranger (2012 – 2016).