

SHINNOSUKE TANIYA

Pasadena, CA

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Education

Harvey Mudd College

Aug 2018 – May 2022

Bachelor of Science in Computer Science (Dean's List) | GPA: 3.60 (Honors)

Claremont, CA

Concentration in Economics

Relevant Coursework

Computer Science: Algorithms, Artificial Intelligence, Computability and Logic, Computer Systems, Computer Vision, Data Structures and Program Development, Natural Language Processing, Programming Languages, Software Development

Math and Economics: Differential Equations, Micro Economics, Multi-variable Calculus, Probability and Statistics

Skills

Programming: ASM, Bash, C, C++, HTML5 & CSS, Java, JavaScript, MATLAB, Python, R, Racket, Ruby

Expertise: Agile Software Development, APIs, Application Scaling, Back-End Framework, Big Data Analytics, Command Lines, Cloud Computing, Database Administration & Infrastructure, DevOps Practices, Front-end Systems, Security Compliance, Software Development Lifecycle Tools, User Interface Design, Version Control

Spoken Languages: English and Japanese (Bilingual Proficiency), Chinese (Professional Proficiency — HSK VI certificate)

Experience

Schmidt Academy for Software Engineering

Aug 2022 - Current

Schmidt Scholar

Pasadena, CA

- Constructing an archive equipped with a photometry data reduction pipeline, API, and a front-end UI as part of a contract with Zwicky Transient Facility (ZTF) researchers to extend alert and analysis infrastructure.
- Standardizing time series from the Catalina Real-Time Survey and the Palomar Transient Factory to offer spatiotemporal baselines for observational astronomy on decade timescales.
- Optimizing ZTF difference imaging pipeline to better classify transients and variables using machine learning algorithms.

Revorf

Oct 2020 - Aug 2022

Lead Developer | R&D Scientist

Tokyo, Japan

- Analyzed medical Big Data containing RNA and other functional products to prevent metastasis of cancer cells and hereditary diseases.
- Partnered with Toshiba, employed their Simulated Bifurcation Machine to design in silico approaches to design and optimize drug discovery problems.
- Developed GUI to automate genomic data analysis to enhance the development and discovery of gene diagnostic agents.
- Established partnerships with RIKEN, top Japanese universities, and significant diagnostic drug development firms.

Schmidt Academy for Software Engineering / Harvey Mudd College

Aug 2021 - May 2022

Technical Project Manager

Claremont, CA

- Project Manager for Schmidt Academy Clinic project to visualize spatial genomics for biology and translational medicine (PM tasks: activity & resource planning, team & time & project risk management, progress monitoring & updates).
- Developed a data pipeline to analyze high-dimensional spatial genomic data from seqFISH+ experiments and configured an appropriate file format for storing data in AWS S3.
- Worked with CaiLab scientists and engineers to provide flexibility to parse genomic data to discover new biological insights, such as identifying phenotypic differences between gene expression targets.
- Developed a web interface that allows researchers and the general public to access, visualize, and analyze the data.

CYBEX and LongHash (Partnership)

Jan 2018 - Aug 2018

Core Developer | Marketing Team Developer

Tokyo, Japan & Shanghai, China

- Developed a full-stack hardware cold wallet for EOS and stabilized the CYBEX crypto exchange platform.
- Developed Telegram bots to improve customer experience, crypto transactions, and anti-spam software.
- Organized a hackathon inviting developers to integrate new decentralized security features, moderated several international blockchain events, and served as a trilingual interpreter (Japanese, English, Mandarin) at the events above.

Leadership

Harvey Mudd College: Honor Board - Elected to serve as the senior representative for the college's student conduct system | Pan-Asian Identity and Culture Group Member | Entrepreneurship | Club Tennis

Human Rights Watch Journalism Intern: Worked on these issues between Sep 2014 - Sep 2018 - International Justice, North Korean and Syrian Refugees, LGBTQ, Women's and Children's Rights, Migrant's Rights | Created a service project and helped create a documentary to raise awareness for LGBTQ members in the Japanese community.

Global Citizens Initiative (GCI) Teaching Assistant: Led and mentored a group of students to assist them with their Glocal Service Project to create an advocacy campaign around select non-profit organizations.