Michael He

858-999-4691 | michaelhe2016@gmail.com | linkedin.com/in/michael-he-profile | michaelhe999.github.io/Michael_He

Objective: Applying to Summer Internships in the field of Software Engineering

Education

University of California, San Diego — La Jolla, CA
Bachelor of Science in Computer Science, Regents Scholar; Provost Honors; GPA: 4.00 — *Aug. 2023 – June 2026*

- **Relevant Coursework:** Advanced Data Structures, Object-Oriented Design, Computer Organization, Systems Programming, Discrete Mathematics, Mathematics for Algorithms and Systems, Design and Analysis of Algorithms, Software Engineering, Computational Problem-Solving, Programming Languages, Statistical Methods, Intro to Data Science

Scripps Ranch High School (SRHS) — San Diego, CA
Diploma, (top 1%) GPA: 4.79 — *Aug. 2019 – June 2023*

- **Relevant Coursework:** AP Computer Science A, Principles of Engineering, Digital Electronics, Calculus

Experience

UCSD Ujima Security and Privacy Research Group — La Jolla, CA
Undergraduate Researcher — *Aug. 2023 – Jun. 2024*

- Research group dedicated to investigating accessibility and security issues impacting marginalized communities
- Work on a research paper on Kenyan finance apps to analyze changes in security and permissions after new government policy to determine the impact and make comparisons with American apps
- Creating a **Python** web scraper to collect app download data and ratings as a variable for analysis and a **Python notebook** to create and run all the scripts for figure creation
- Learning accessibility tests of various app APKs through the **Java**-based **Espresso Test API** and Google's **Android Accessibility Test Framework (ATF)** in **Android Studios**
- **Project lead** for team creating a **Flask** web application to facilitate the creation and execution of Implicit Association psychological tests

UCSD Programming Systems Group — La Jolla, CA
Undergraduate Researcher — *Mar. 2024 – Jun. 2024*

- Performed analysis of video interview about participants' use of Jupyter notebook using **MAXQDA**
- Completed CITI Program training on social and behavioral research for work with human subjects

iD Tech Camps — La Jolla, CA
Instructor — *Jun. 2024 – Aug. 2024*

- Taught a range of students from middle to high school in complex coding and technology concepts
- Instructed students in **Python** and introduced AI through neural networks, **Tensorflow models** and **OpenAI**
- Guided students to create robots with Vex kit parts and code state machines and precise motor control in **C++**

CSE 12 Tutor — CSE Department @ UCSD — *Mar. 2024 – Present*

- Held tutoring hours to assist students in course topics, resolving **over 100** tickets with a **>98%** resolution rate
- Assisted TAs with exam preparation, assignment testing, and assignment grading

Garcia Summer Program — Stony Brook, NY
High School Researcher — *Jul. 2022 – Aug. 2022*

- Assisted doctorate student in running simulations on blood-contacting materials such as polylactic acid chains binding to fibrinogen using **UCSF Chimera** and **PyMol**
- **Co-wrote and presented research abstract** at Garcia 2022 Research Scholars Symposium

UC Davis California State Summer School for Mathematics and Science — *July 2021*

- As a participant in the Biophysics and **Robotics** cluster, collaborated with other students on coding projects
- Using **C**, programmed the motor motions of a robotic printer to output letters of the alphabet
- Created random walk simulator in **Python**, as well as analyzing the effectiveness of each random walk.

Projects

Implicit Association Test – Research Project | *Flask, Javascript, HTML, CSS, SQLite3, Git* Feb. 2024 - Present

- Web application to facilitate the creation and execution of implicit association psychological tests
- As project lead, coordinated team member assignments and responsibilities and managed **GitHub** repository
- As full stack developer, created framework of **Flask** web application with working **HTML** and **JavaScript** front-end, **Python** back-end routing and logic, and **SQLite3** database

School Schedule Maker – Club Project | *MERN, Javascript, Git* Jan. 2024 - Mar. 2024

- Web application to enable users to automatically generate course schedules given parameters using school data
- As back-end developer, used **JSON Web Tokens** to make an authentication system in **JavaScript** for users to access individual data
- Created routing logic, models for different objects, and controllers to define user behavior using **JavaScript**

Math Learning App – Research Project | *Unity, C#, Git* Sept. 2023 - Oct. 2023

- Adaptive mobile app-form game for simple addition learning targeted towards elementary-age children
- Implemented principles of accessible design such as element labels, color contrast, and reliable touch targets in front-end GUI elements through **Unity** tools
- Back-end implemented **C#** code using the **Unity** platform for memory storage and adaptive settings

Activities and Leadership

VP External — Computer Science and Engineering Society @ UCSD *Oct. 2023 – Present*

- Organized two Start-Up Career Fair with a total of **24** companies; ∼**300** UCSD students to offer opportunities
- Maintain and create relations with recruiters for collaborations and sponsorships with CSES for events
- Coordinated CSE Day, a collaboration between **8** different CSE student organizations with **over 100** student participants with a professor mixer, alumni panel, project showcase, and coding challenge

Technical Skills

Languages: Java, Python (NumPy, MatPlotLib, Pandas, Seaborn), C/C++, C#, JavaScript, MATLAB

Tools: Git, JUnit, Google Cloud, VS Code/Visual Studio, Unity, Colab, LaTeX, Android Studios, MongoDB, Express, React, Node, Flask, HTML, SQLite, Postman