Andrew Shieh

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Education

University of California, Berkeley *Aug 2018 – May 2022*
B.S. Electrical Engineering & Computer Science **GPA: 3.73**

- **Relevant Coursework:** Data Structures, Discrete Mathematics and Probability Theory, SICP, Efficient Algorithms and Intractable Problems (IP), Foundations of Data Science (IP)

Palo Alto High School (GPA: 4.4) *Aug 2014 – May 2018*

Work Experience

UC Berkeley College of Engineering, *Academic Intern* | Berkeley, CA *Jan 2019 – Present*

- Helped students in lab by reinforcing course content and key programming concepts beyond basic syntax
- Improved students' comprehension of course material individualized guidance and teaching
- Assisted TA's in conducting office hours and labs in two large undergraduate classes (1300+ students)

vArmour Networks, *Software Engineering Intern* | Mountain View, CA *Jun 2017 – Aug 2017*

- Independently studied the Azure cloud API to develop programs to retrieve and normalize flow logs
- Developed a Python SDK to wrap a RESTful API and wrote over 800 unit test scripts for the SDK
- Created customer-facing script to enhance product connectivity detection features

Projects

Stress Management Journal | *Javascript, HTML/CSS*

- Developed web application to allow users to upload photos of themselves and descriptions of their day
- Utilized Google Cloud API to detect stress levels and provide self-care tips for the user

3D Cube Renderer | *Java, Python*

- Created program in Java to render a rotating cube with custom cube mesh and matrix math modules
- Wrote a port of the program in Python

Maps | *Java*

- Implemented back-end for web-mapping application with image rastering and turn-by-turn navigation
- Used A* algorithm to optimize shortest path searching using data from the OpenStreetMap project

Lisp Interpreter | *Python*

- Created an interpreter for instant parsing and evaluation of programs written in the Lisp language
- Implemented using tail-recursion, allowing for faster interpretation and support of unlimited tail calls

To-do List | *Node.js, Express, MongoDB*

- Developed a robust to-do web application, connected to a MongoDB database

Skills

Languages and Libraries: Python, Java, C/C++, Javascript (Node.js, Express), SQL, NumPy, Arduino
Development Tools: Git, Atlassian Suite (Bitbucket, Jira, Confluence), Microsoft Suite, Azure, Linux, IDEs

Extracurricular Activities

Taiwanese American Student Association, *Outreach Officer* | Berkeley CA *Aug 2018 – Present*

- Planned, organized, and lead events to celebrate Taiwanese culture and Taiwanese-American identity
- Collaborated with external cultural and community organizations to organize community service events