

# Timothy Deng

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**EDUCATION** | **University of California, San Diego** *Sept 2015 – June 2019 (expected)*

- BS in computer science, minor in cognitive science, senior standing
- 3.72 / 4.0 cumulative GPA

**COURSEWORK** | **Computer Science**

- Discrete Mathematics
- Programming Languages & Paradigms
- Computer Architecture
- Design & Analysis of Algorithms
- AI: Search & Reason
- Database Systems Principles
- Computer Operating Systems
- Advanced Data Structures
- Theory of Computation
- Modern Cryptography
- Recommender Systems & Mining
- Computer Vision

**Cognitive Science**

- Intro to Data Science
- Modeling & Data Analysis

**WORK EXPERIENCE** | **Software Engineering Intern, Foursquare** *New York, NY, June 2018 – Sept 2018*

- Pushed features like reverse chronological search, native sharing, and venue page components
- Ran A/B experiments to increase photo uploads on Swarm (worldwide lift of ~2%)

**Software Engineering Intern, Qualcomm** *San Jose, CA, June 2017 – Sept 2017*

- Porting Qualcomm's internal integration service from utilizing IBM ClearCase to Perforce
- Sends automated emails to team leads on status of current build versions using Python

**Software Engineering Intern, Intellecty** *San Marcos, CA, June 2016 – Sept 2016*

- Created an iOS Swift application that uses optical character recognition libraries to scan receipts
- Implemented OpenCV C++ algorithms in iOS to preprocess images for Tesseract OCR
- Connected to the ABBYY Cloud OCR API for online recognition
- Used regular expressions to parse output into actionable data along with some Python scripting

**Tutor, UCSD Computer Science Department** *UCSD, 2017*

- Tutored & held lab hours for Data Structures, Discrete Math, and Intro to Theory of Computation
- Graded programming assignments, problem sets, and exams

**Webmaster and Features Co-editor, UCSD Guardian** *UCSD, 2016 – Present*

- Writes and edits long-form feature articles on topical issues in AP style (see [Guardian](#))
- Conducts, transcribes, and fact-checks interviews
- Revamped [ucsdguardian.org](#) website with custom WordPress PHP code for responsiveness

**PERSONAL PROJECTS** | **AI Games – Python** *2018*

- Created AI agents to solve mazes, 2048, blackjack, Gomoku, and Sudoku
- Used AI search & reasoning algorithms such as A\*, minimax, Q-learning (reinforcement), Monte-Carlo tree search, and SAT-solving

**Stop Shop Parking – JavaScript, HTML, CSS, Firebase** *2017*

- Worked with a team of 11 to create a web app that lets two parties swap parking spaces at UCSD
- Used modern technologies like Node, React, and Firebase to implement (see [GitHub](#))

**YHack – Java, Perl** *2015*

- Developed a chat bot that uses Markov chains and Facebook Messenger data to talk to user
- Identifies conversation topic using keywords to generate appropriate sentences (see [GitHub](#))

**DVHS ConnectED Club – PHP, HTML, CSS, SQL** *2012 – 2015*

- Designed the club website that helped over 100 club members keep track of volunteer hours
- Can be found at [www.dvhsconnected.com](#), now managed by new club members (see [GitHub](#))

**TECHNICAL SKILLS** | **Languages & Technologies**

- Java
- Python
- Swift
- Objective-C
- HTML/CSS
- JavaScript
- Git & GitHub
- PyTorch
- Mandarin Chinese