

# Christopher Pence

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## Employment

### Microsoft

#### Software Engineer

REDMOND, WA

Sep '19 – current

- Designed and developed IoT applications that back Microsoft employees' workplace experiences.
- Used C#, .NET Core, and React extensively.

### UCSD Computer Science & Engineering Department

#### Head CS Tutor

LA JOLLA, CA

Sep '16 – Jun '17 | Sep '17 – Jun '18 | Sep '18 – Jun '19

- Taught C, ARM/SPARC assembly, and Java to classes of up to 600 students.
- Conducted quiz reviews with groups of up to 200 students.
- Solidified understanding of cross-language concepts by designing class discussions.
- Enhanced communication skills by one-on-one tutoring.
- Developed leadership skills by mentoring and guiding discussion plan development with the tutor team.

### WhizKidz Computer Center

#### Instructor/Developer

SAN JOSÉ, CA

Jun '16 – Sep '16 | Jun '17 – Aug '17 | Jun '18 – Jul '18

- Constructed curricula for two pilot game development classes using Pygame Python gaming library.
  - Implemented a permissions-based user account system in MySQL and PHP for the website.
  - Designed an online homework system with data-driven interface construction, using React.
  - Taught Python, Java, Full-Stack Web Development, and hardware/IoT classes.
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## Education

### B.S. in Computer Science

#### Relevant Coursework

UNIVERSITY OF CALIFORNIA - SAN DIEGO

Sep '15 – Jun '19 | GPA: 3.87

- Software Engineering Project (Android Phone App)
  - SQL, Database Implementation (C++), Computer Networks
  - Computer Architecture, Systems Programming, Operating Systems
  - Machine Learning, Linear Algebra
  - Data Structures and Object-Oriented Design (C++)
  - Discrete Mathematics, Algorithms Analysis, Computability Theory
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## Projects

**slang:** Reinforced programming language skills by developing a programming language inspired by Lisp/Scala with functional and imperative programming features.

**ProofBuilder:** Won first place in the Education category at Hacktech '16 for a proof “workbench” written with HTML/CSS/JS that facilitates writing proofs for proof-based classes.

**Eventlit:** Android mobile application with a Firebase backend for authentication and data storage. Provides a platform for UCSD student organizations to post events and accept RSVPs. Made with a team of 9 people for CSE 110 software engineering course at UCSD.

**jas:** Reinforced newly acquired knowledge of ISAs by writing an assembler in C for a hypothetical virtual machine and its instruction-set.

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## Skills

**Highly Experienced with:** C, C#, Java, Python, Unix

**Web Stack:** HTML5, CSS3, JavaScript (with jQuery), React

**Capable with:** C++, MySQL, PHP, Matlab, Wolfram, Java AWT,  $\LaTeX$

**Source Control and Editors:** Git, Vm, Atom.io, IntelliJ, Eclipse, Visual Studio

**Natural Languages:** English, Spanish

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