DYLAN PADDOCK

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Education

B.S. in Electrical Engineering and Computer Science **Berkeley, USA**
University of California, Berkeley *May 2015*
Relevant Coursework: Data Structures, Efficient Algorithms and Intractable Problems, Foundations of Computer Graphics, Introduction to Artificial Intelligence.
GPA 3.718

Experience

Maple English School **Okayama, Japan**
Native English Instructor *March 2016 – July 2017*
Taught English as a foreign language to Japanese students, from two-year-olds to teens and adults. Planned classes in conversation, reading and writing development, biology, math and computer science. Developed teaching materials including procedurally-generated Bingo cards and lesson-specific worksheets. Organized and managed events. Catalogued resources. Worked within a team of six teachers.

University of California, Berkeley **Berkeley, USA**
DeCal Facilitator *Sept 2012 – Dec 2014*
Designed and taught eight courses for UC Berkeley students through the Democratic Education at Cal program, individually or with co-teachers. Conceptualized course themes and topics, created curriculum, selected reading materials, and taught two or more hours of class per week for each course. Subjects taught include Strategy in Tabletop Gaming, Comparative Fantasy Literature and Tea.

The Center for Investigative Reporting **Berkeley, USA**
Programming Volunteer *July 2013 – Feb 2014*
Designed and programmed particle effects for animations to accompany pieces of investigative journalism.

The Vienna University of Technology **Vienna, Austria**
Researcher *June – July 2012*
Conducted research on road traffic congestion and control. Programmed traffic models for use in model-predictive control systems.

Selected Projects

Nim
Personal Project

Built the game Nim in Unity. Features include click and drag selection, menus, randomized game setup, and a choice of play against a human or computer player of varying difficulty including optimal play. Released on Google Play.

Particle Image Effects
Center for Investigative Reporting and Coco Studios

Designed and implemented a particle effect in Unity to gradually build an image from randomly moving particles. The effect was used in an animation produced by CIR. The full video can be found here.

Automated Panorama Generation
Academic Project: Image Manipulation and Computational Photography

Given a set of photographs taken from the same location, the program identifies control points that match among images, morphs them according to perspective-preserving homographies and stitches them together into a panorama. Built in MATLAB for ease of matrix and image manipulations. Detailed project notes can be found here and here.

Additional Qualifications and Awards

University of Cambrige and International House Bangkok **Bangkok, Thailand**
Cambridge CELTA *Oct 2015*

HKN Electrical and Computer Engineering Honor Society **Berkeley, USA**
Activities Officer, Committee Member and Member *May 2013 – May 2014*
Responsible for honor society event logistics and planning, outreach, weekly tutoring, and conducting course surveys.

TBP Engineering Honor Society **Berkeley, USA**
Member *Dec 2012*

Skills

Computer Science

- Python
- C/C++/C#
- Java
- MATLAB
- Unity
- LaTeX
- Git

Language

- Native English
- Advanced Spanish
- Elementary Japanese
- Phonetics and Phonology

Travel

- Lived in the United States, Moscow, Jakarta, Singapore, Vienna, Bangkok and Okayama, Japan.
- Traveled to over 50 countries on six continents, including Bhutan, Burma, Romania, Tunisia, Palau, and Bolivia.
- Effective at communication across different cultures and linguistic backgrounds.