BRYON TJANAKA

bryon@btjanaka.net · btjanaka.net · github.com/btjanaka · Santa Clara, California

EDUCATION

University of Southern California · Los Angeles, CA ⸻ Aug. 2020 - Present
Ph.D. Computer Science · Advisor: Stefanos Nikolaidis

University of California, Irvine · Irvine, CA ⸻ Sept. 2017 - Jun. 2020
B.S. Computer Science (AI specialization) · GPA: 4.0/4.0 · ICS Honors
- Regents' Scholarship - merit scholarship awarded at admission for performance in high school
- Relevant courses: Neural Networks and Deep Learning, Optimal Control and Reinforcement Learning

EXPERIENCE

Intelligent Dynamics Lab · UC Irvine (PI: Professor Roy Fox) ⸻ Oct. 2019 - Jun. 2020
Undergraduate Researcher
- Designed and implemented ACBC, a novel reinforcement learning algorithm

Google, Inc. · Mountain View, CA ⸻ Jun. 2019 - Sept. 2019
Software Engineering Intern
- Implemented, optimized, and evaluated multithreaded affinity clustering, a scalable clustering algorithm
- Attended workshops on performance optimization, Haskell, machine learning, and giving/receiving feedback

Mobley Lab · UC Irvine (PI: Professor David Mobley, Graduate Mentor: Jessica Maat) ⸻ Oct. 2018 - Jun. 2020
Undergraduate Researcher
- Built a pipeline for selecting datasets from databases of millions of molecules
- Used greedy weighted set cover algorithm to select molecules utilizing all parameters in a force field
- Received 2 fellowships from UC Irvine Undergraduate Research Opportunities Program

Google, Inc. · Mountain View, CA ⸻ Jun. 2018 - Sept. 2018
Engineering Practicum Intern
- Developed a tool which evaluates Google Assistant extensions by analyzing responses to thousands of queries
- Documented this tool with Markdown to make it as easy as possible for Google Assistant reviewers to use

LEADERSHIP & SERVICE

Association for Computing Machinery (ACM), UC Irvine Chapter ⸻ Sept. 2017 - Feb. 2020
Internal Vice President, Competitor
- Collaborated in teams of three to solve algorithm problems in various programming contests
- Trained other students to compete by organizing events such as a series of 3 campuswide competitions
- Ranked 7th/88 at ACM ICPC 2019 SoCal Regional & 39th/4103 in world, 4th/202 in US at IEEExtreme 13.0

Google Girl-Powered VEX Robotics Workshop · Mountain View, CA ⸻ Jul. 2017, Aug. 2018, Jun. 2019
Speaker, Volunteer
- Introduced hundreds of middle school girls to VEX Robotics by helping them build and program their first robot

PROJECTS

Neural Networks and Deep Learning Course Project: Bird Audio Detection ⸻ Apr. 2020 - Jun. 2020
- Worked with a team of four to build a PyTorch model for detecting bird sounds from audio

HackUCI V Hackathon Project: Safeline ⸻ Feb. 2019
- Used Python, OpenCV, and a Raspberry Pi camera to detect people falling down and send alerts to iPhone
- Best Entrepreneurial Hack award

SKILLS

Languages: C++, C, Python, Java, JavaScript, Haskell, SQL, Bash, Markdown, Latex, HTML/CSS
Libraries and Frameworks: PyTorch, TensorFlow, NumPy, Matplotlib, pytest, Google Test, React.js, Jekyll
Tools: Vim, tmux, Visual Studio Code, Git, Linux commands, Google Suite, Inkscape
Natural Languages: English (fluent), Mandarin (proficient)

ADDITIONAL INFORMATION

Champion of 2017 VEX Robotics High School World Championship · **Speedcuber** (solve Rubik's cube in <1 min)
Member of 2020 UCI Homecoming Court · **Occasional Graphic Designer** (btjanaka.net/personal)