

BRYON TJANAKA

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EDUCATION

University of California, Irvine • Irvine, CA Sept. 2017 - Jun. 2020

B.S. Computer Science • ICS Honors • Rank: Senior

- Regents' Scholarship - merit scholarship awarded at admission for performance in high school
- Relevant courses: Machine Learning and Data Mining, Formal Languages and Automata, Computer Graphics

EXPERIENCE

Intelligent Dynamics Lab • UC Irvine (PI: Professor Roy Fox) Oct. 2019 - Present

Undergraduate Researcher

- Design and implement novel hierarchical reinforcement learning algorithms for robotics

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 - Present

Undergraduate Researcher

- Improve drug simulation accuracy by building a pipeline for filtering 6 million molecules
- Use 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 in 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 - Present

Internal Vice President, Competitor

- Collaborate in teams of three to solve algorithm problems in various programming contests
- Train 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 IEEEExtreme 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

Databases and Web Apps Course Project: Fabflix Mar. 2019 - Jun. 2019

- Built an online movie service with MySQL database, Java back-end, and HTML/CSS/JS front-end

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, JavaScript, Java, Haskell, HTML, CSS, Markdown, Latex, SQL, Bash

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 INTERESTS

Robotics (Champion of 2017 VEX Robotics High School World Championship) • **Graphic Design** (btjanaka.net)

Modular Origami (fold/assemble 100's of pieces of paper) • **Speedcubing** (solve Rubik's cube in <1 min)