Hunter McNichols (He, Him)

EDUCATOR & ENGINEER

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PROFILE

Passionate educator with two years of collegiate teaching experience and six years of software development experience seeking a doctoral degree in computer science with the long-term goal of attaining a tenure-track teaching position. Areas of research interest include natural language processing, artificial intelligence, and human-robot interaction.

EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA — M.S. COMPUTER SCIENCE   2015-2016, GPA 3.64
UNIVERSITY OF SOUTHERN CALIFORNIA — B.S. COMPUTER SCIENCE   2012-2016, GPA 3.73
HONORS: MAGNA CUM LAUDE, TRUSTEE SCHOLARSHIP

TEACHING EXPERIENCE

CITY COLLEGE OF NEW YORK: MANHATTAN, NY   2020-PRESENT
ADJUNCT LECTURER
- Designed course in AI fundamentals, including current industry trends
- Topics include: rational-agent paradigm, search algorithms, representations in machine learning, foundations of computer vision, and natural language processing
- Coursework includes: practical coding exercises using SVMs, Neural Networks, and other machine learning algorithms in SciKit Learn

UNIVERSITY OF SOUTHERN CALIFORNIA: LOS ANGELES, CA   2014
TEACHING ASSISTANT
- Instructed undergraduates on fundamental C++ programming concepts during lab
- Reviewed and critiqued code from new programmers, emphasizing best practices

WORK EXPERIENCE

HUNTERCODES: BROOKLYN, NY   2019-PRESENT
BUSINESS OWNER & SOFTWARE ENGINEER
- Partnered with small businesses and startups to build out new software business ventures
- Planned, organized, and developed a variety of projects from web applications to data pipelines
- View my portfolio: huntercodes.com/portfolio

APPLE INC: CUPERTINO, CA   2016-2019
SOFTWARE ENGINEER - SIRI
- Refined dialog frameworks used by teams of designers and engineers
- Created and taught 'Introduction to Siri Development' workshop at Siri University
- Pioneered internal debugger tools for VSCode to streamline developer workflows
- Refined platforms across the stack written in Java, TypeScript, Python, and Objective-C

APPLE INC: CUPERTINO, CA   2015
SOFTWARE ENGINEERING INTERN
- Created a Siri prototyping app for designers to experiment with new Siri interactions
- Developed a full-stack web application for designers to prototype Siri interactions
- Built an iPhone app in Swift which downloads the interactions and replays them

BLUEBEAM INC: PASADENA,CA   2014
SOFTWARE ENGINEERING INTERN
- Prototyped a geofence-based iPad application for use on construction sites
- Built iPad application in Swift integrating with Gimbal "iBeacon" technology
- Worked collaboratively in Git with a small team of engineers
- Measured effectiveness of application in construction environments

OTHER PROJECTS

DEEP LEARNING PROJECT, SLIPPI-AI: REMOTE   2021-PRESENT
OPEN SOURCE CONTRIBUTOR
- Integrated new neural architectures into deep learning project
- Assembled Transformer-inspired network using TensorFlow and Sonnet
- Analyzed training outcomes for various learning rate cycles and model hyper-parameters
- View source code: https://github.com/vladfi1/slippi-ai

INTERACTION LAB, UNIVERSITY OF SOUTHERN CALIFORNIA: LOS ANGELES, CA   2016
SENIOR CAPSTONE PROJECT
- Worked with PhD students under PI Maja Matarić to create a social robotics experience
- Built web application game played with stationary robot via tablet
- Integrated application with robot controls via Robot Operating System (ROS) libraries
- Experimented with using bezier curves for smoother robotic movements
- View Demo: https://www.youtube.com/watch?v=jDC4gEA5FE0

SKILLS

Frameworks: TensorFlow (Keras/Sonnet), SciKit Learn, React.js, AWS Lambda, ROS
Languages: Python, JavaScript, Java, Objective-C, C++, TypeScript
Pedagogical: Course Development, Virtual Instruction, Classroom Management