Peter Cottrell, Ph.D.

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Publications: ACM author profile LinkedIn: Profile

Early Career Ph.D. graduate, dissertation in assistive robotics, mixed methods prototyping, multi-material production and UX research. Seeking UX Researcher, UX Engineer, Embedded Systems Engineer, Computer Engineering, Data Analysis or Product Management role.

Education

June 2021 Doctor of Philosophy in **Computational Media**
University of California, Santa Cruz
Dissertation: "Supporting Self-Regulation with Deformable Controllers"
Advisors: Dr. Katherine Isbister and Dr. Sri Kurniawan

June 2013 Bachelor of Science Degree in **Bioengineering**, focus in **Rehabilitation**
University of California, Santa Cruz

Work Experience

March 2023-Present — *Experience Production Engineer at* Palace Games
Design, fabrication and maintenance of interactive exhibits and escape rooms. Tasks included project management, prototype production and refinement, soldering and assembly of parts, fabrication of 3D prints, assembly and wiring of kinetic sculptures.

July 2021 — *COSMOS Teacher Fellow at* UCSC Educational Partnership Center
Taught high school students game design and programming during a 4 week summer camp. Topics included Paper Prototyping, Python, User Testing.

March-July 2020 — *Product Research Contractor at* Companion
Remote field testing of dog training device. Automated weekly survey deployment and dashboard interpretation. Wrote and copy-edited PRD, consumer on-boarding material, website and FAQ. Investor showcasing (secured multi-million investment).

Jan 2015-June 2021 — *Assorted Teaching Roles at* UCSC Baskin School of Engineering
Courses including Human-Computer Interaction, Universal Access Design, Computer Game Design and Programming in Java, C, C++, Verilog, Assembly, Python, Processing.

Methodology and Programming Experience

In-depth Knowledge 2+ years of exp. Quantitative Qualitative	Mixed Method Studies, Lab and Field testing, Product Development and Iterative Design, HCI, HRI, Java, C, C++, LaTeX, Arduino Behavior Coding, Survey Design, Heuristic Evaluation Think-aloud Protocol, Interviews, Transcription and Theme Coding
Detailed knowledge 6 months - 2 years	Psychology (PASAT, Emotion Elicitation, Trier Social Stress Test), Python, Statistical Analysis (SPSS and R), LIWC Analysis, MatLab, Github, C#

Patents and Publications

Google Scholar Profile: Peter Cottrell, Ph.D.

2024 | *Extracting the Affective Content of Fidgeting in Adults with ADHD via Machine Learning and a Hand-held Soft Tangible Device*
N. Nasiri, et. al.
CHI 2024

2021 | *Design (not) Lost in Translation: A Case Study of an Intimate-Space Socially Assistive "'Robot"' for Emotion Regulation*
K. Isbister, P. Cottrell, et. al.
ToCHI Journal

2019 | *Gait Analysis Medical Assistance Robot*
E. Martinson, P. Cottrell
US Patent 10383552

2019 | *Translating Affective Touch into Text*
D. Shapiro, Z. Zhan, P. Cottrell, K. Isbister
ACM published Conference proceedings of *CHI 2019*

2018 | *Designing Socio-Technical Interventions in Families to Prevent Mental Health Disorders*
P. Slovák, et. al.
ACM published Conference proceedings of *CSCW 2018*

2018 | *Soft-bodied Fidget Toys: A Materials Exploration*
P. Cottrell, A. Grow, K. Isbister
ACM published Conference proceedings of *TEI 2018*

2016 | *Personalized Intelligent Prosthesis for Tremor Suppression*
P. Cottrell, S. Kurniawan, M. Teodorescu
SIGACCESS 2016

2014 | *Design Guidelines of Tools for Facilitating Blind People to Independently Format Their Documents*
L.M. Morales, S.M. Arteaga, P. Cottrell, S. Kurniawan
In *Computers Helping People with Special Needs* (pp. 634-641).

2013 | *Assistive Living Robot: Remotely Controlled Robot for Older Persons Living Alone*
S. Hening, P. Cottrell, M. Teoderescu, S. Kurniawan, P. Mantey
ACM published Conference proceedings of *PETRA 2013*

Awards and Grants

2021	Sproutel Purrble featured in "'100 Best Inventions of 2021"', NY Times Magazine
2019	National Institutes of Health R21 Grant: "Can fidgeting lead to enhanced attention and emotional regulation in adult ADHD?"
2015	Awarded graduate fellowship from Chancellor's Internship Program
2013	1st place in "IT for Society" division of Big Ideas@Berkley competition
2013	Received Dean and Chancellor's Awards for Outstanding Undergraduate Research

Teaching Experience

Spring 2021	*Teaching Assistant for* CMPM 172: Game Design Studios 3
Winter 2021	*Teaching Assistant for* CMPM 176: Game Systems
Winter 2020	*Teaching Assistant for* CMPM 171: Game Design Studios 2
Fall 2019	*Teaching Assistant for* CMPM 179-01: Game Design Practicum
Spring 2019	*Graduate Student Instructor for* CMPM 131: User Experience for Interactive Media
Winter 2019	*Teaching Assistant for* CMPM 171: Game Design Studios 2
Fall 2018	*Teaching Assistant for* CMPM 170: Game Design Studios 1
Spring 2018	*Teaching Assistant for* CMPS 5J: Intro to Programming Java
Fall 2017	*Teaching Assistant for* CMPE 12: Comp. Systems and Assembly Language
Summer 2017	*Teaching Assistant for* CMPS 115: Intro to Software Engineering
Spring 2017	*Teaching Assistant for* CMPS 5J: Intro to Programming Java
Winter 2017	*Teaching Assistant for* CMPM 131: User Experience
Fall 2016	*Teaching Assistant for* CMPE/S 200: Research and Teaching in CS/CE
Spring 2015	*Teaching Assistant for* CMPE 80E: Engineering Ethics
Winter 2015	*Teaching Assistant for* ASTR 6: The Space-Age Solar System
Winter 2015	*Grader for* CMPE 131/231: Human-Computer Interaction
Fall 2014	*Grader for* CMPE 8: Robot Automation
Summer 2014	*Teaching Staff at* Digital Media Academy
Spring 2014	*Grader for* CMPE 80A: Universal Access
Winter 2014	*Grader for* CMPE 131/231: Human-Computer Interaction
Fall 2013	*Tutor for* CMPE 118/L: Introduction to Mechatronics
Spring 2013	*Grader for* CMPE 80A: Universal Access
Winter 2013	*Grader for* CMPE 131/231: Human-Computer Interaction